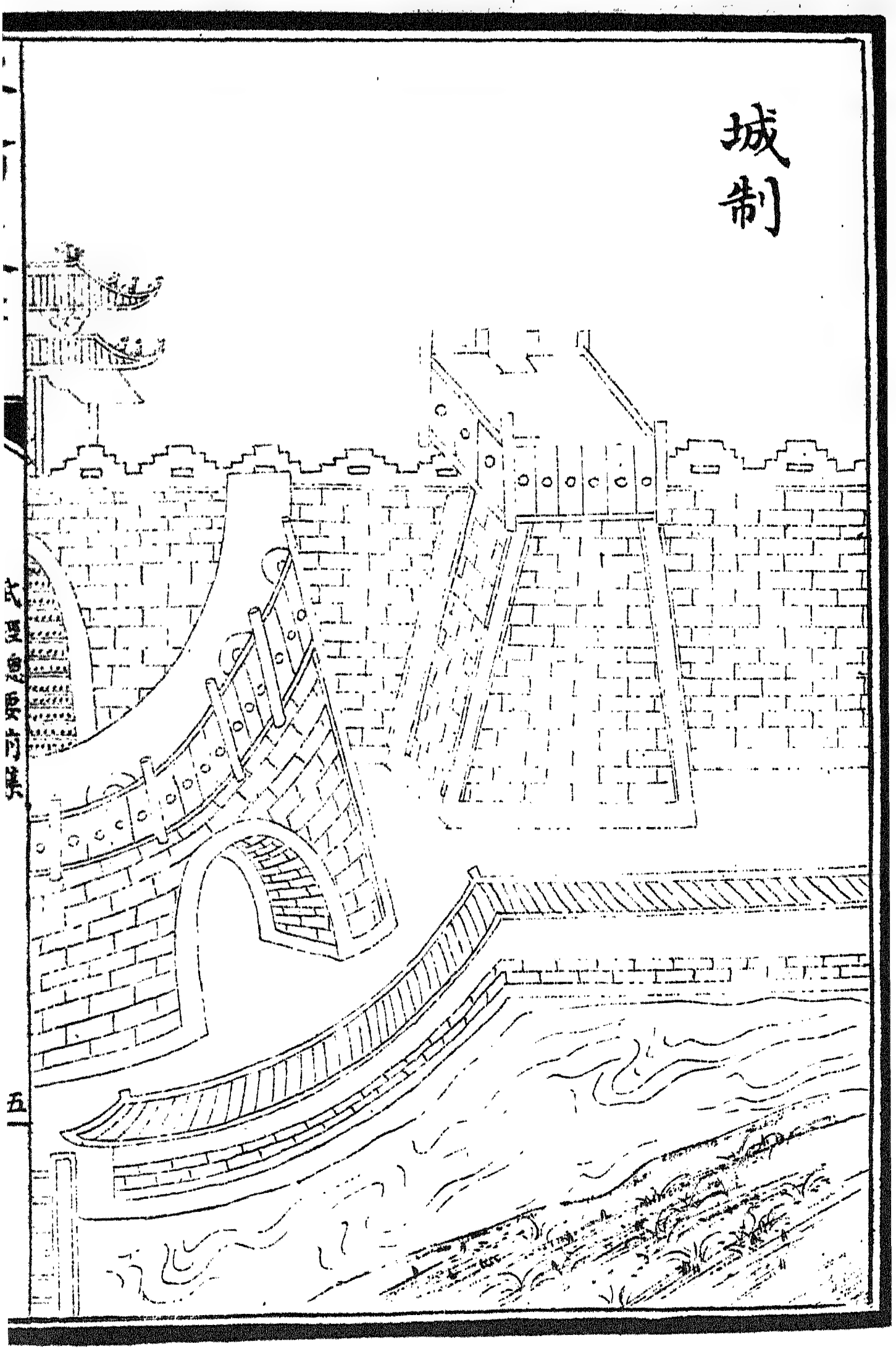
武經總要

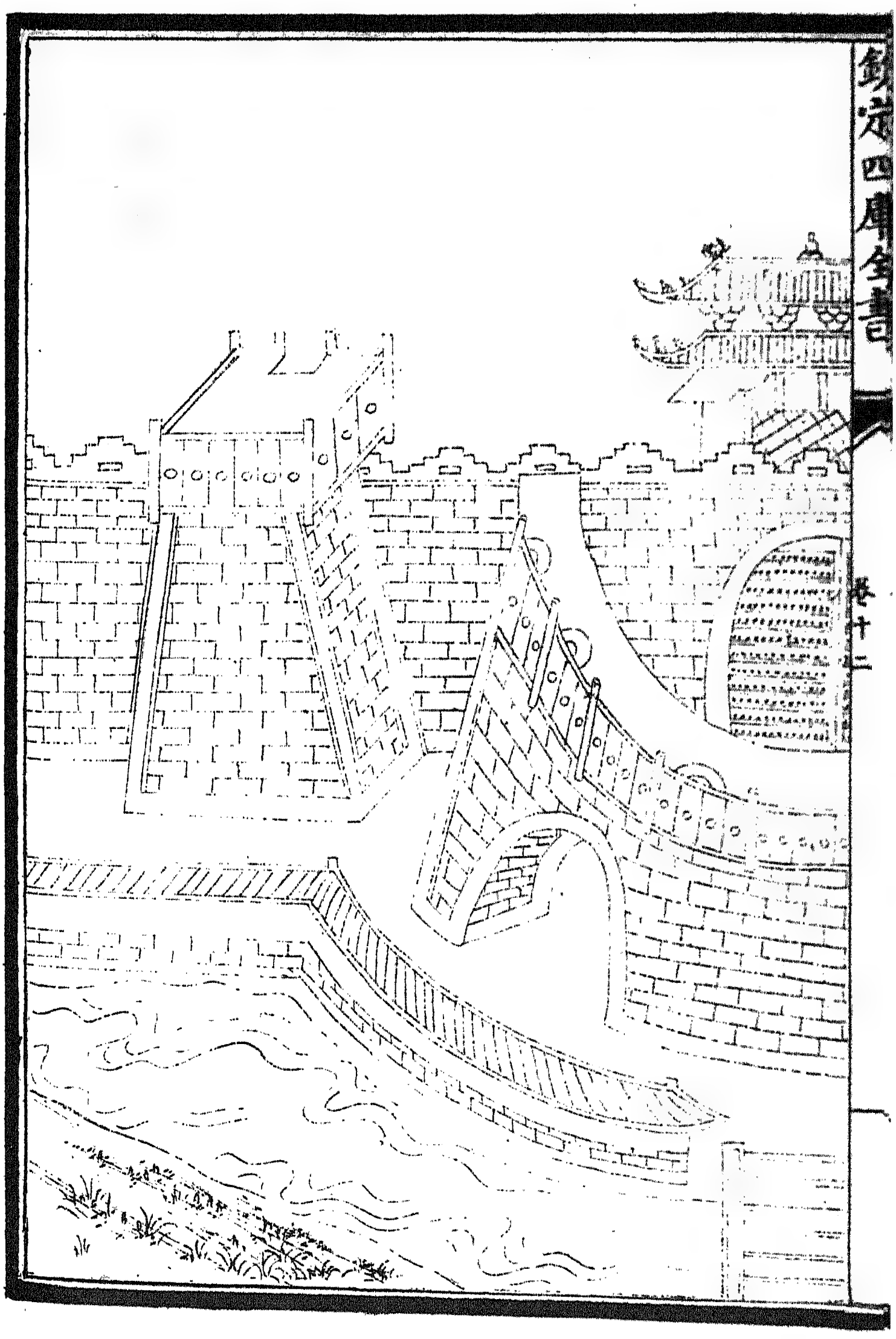
六

方以謀彼師或屢出以疲彼師或彼求鬬而我不出或彼欲去而懼我若此者皆古人所以坐而役使敵國之道也此雖得禦攻之計然又要先審可守之利害凡守城之道有五敗一曰壯大寡小弱衆二曰城大而人少三曰糧寡而人衆四曰蓄貸積於外五曰豪彊不用命加之外水高而城内低土脈疎而池隍淺守具未足薪水不供雖有高城宜棄勿守亦有五全一曰城隍修二曰器械具三曰人少而粟多四曰

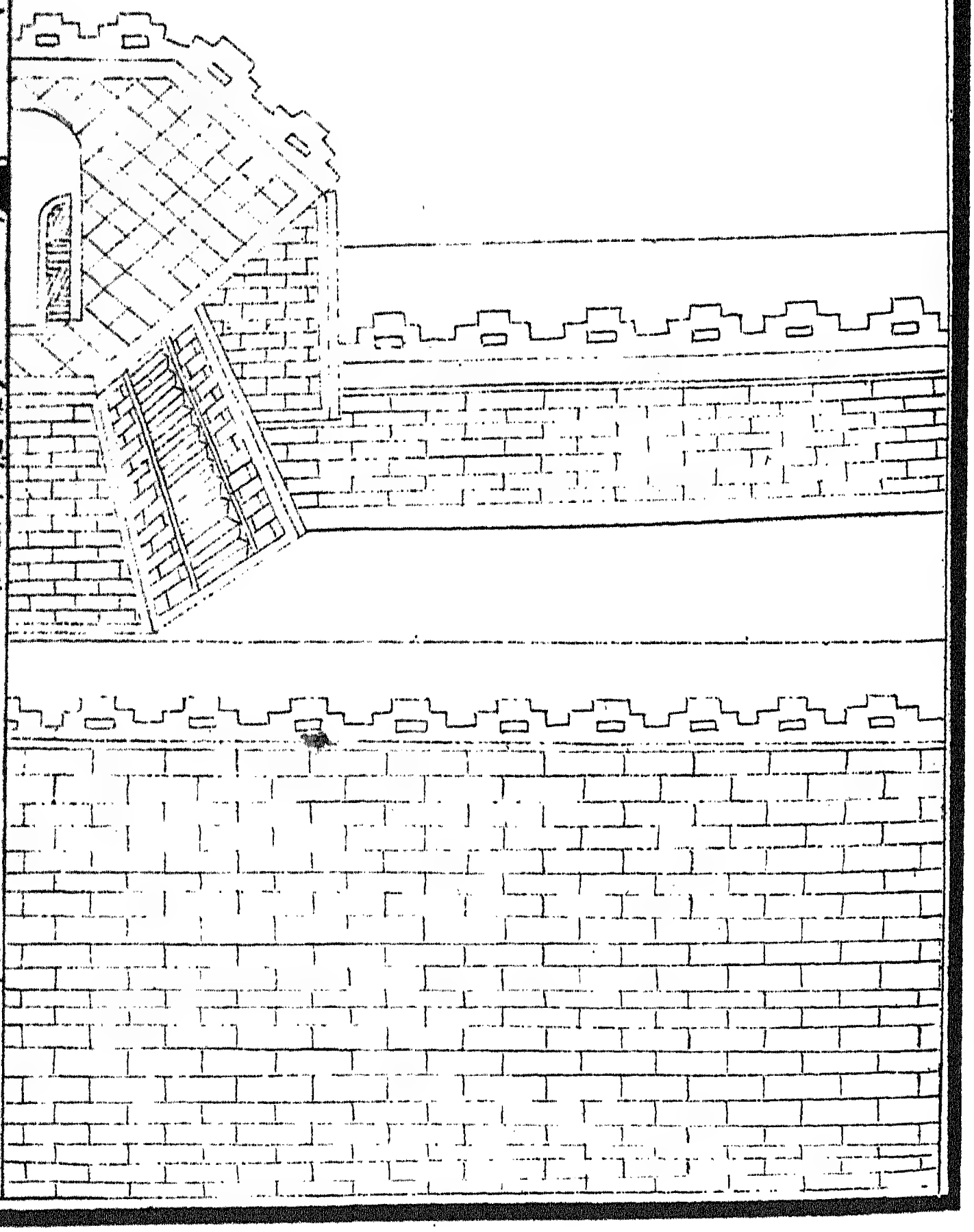
我若敵攻已久不拔而去此為疲師可躡而襲之必破此又寄之明哲見利而行不可羈以常檢也古法曰三里之城萬家守之足矣今若遇敵逼近人力不暇者即且約容一軍人馬如築於閒時須稍寬闊作四門二開二閉門外築甕城城外鑿壕去大城約三十步上施釣橋壕之内岸築羊馬城去大城約十步凡城上皆有女牆每十步及馬面皆上設敵棚敵團敵樓甕城敵團城角也有戰棚棚樓之上有白露屋城門重門揷版鑿扇城之外四面有弩臺自

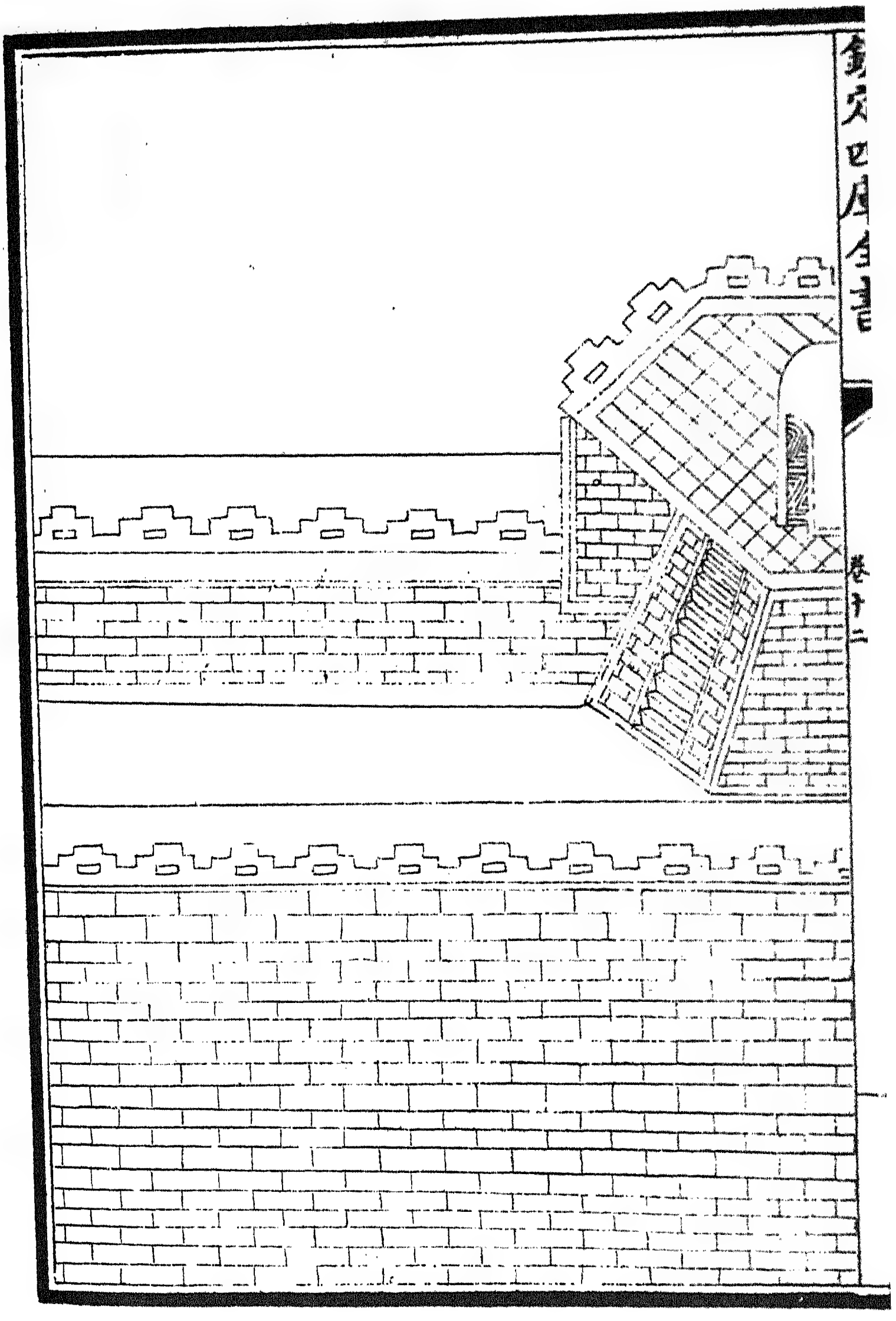
城制





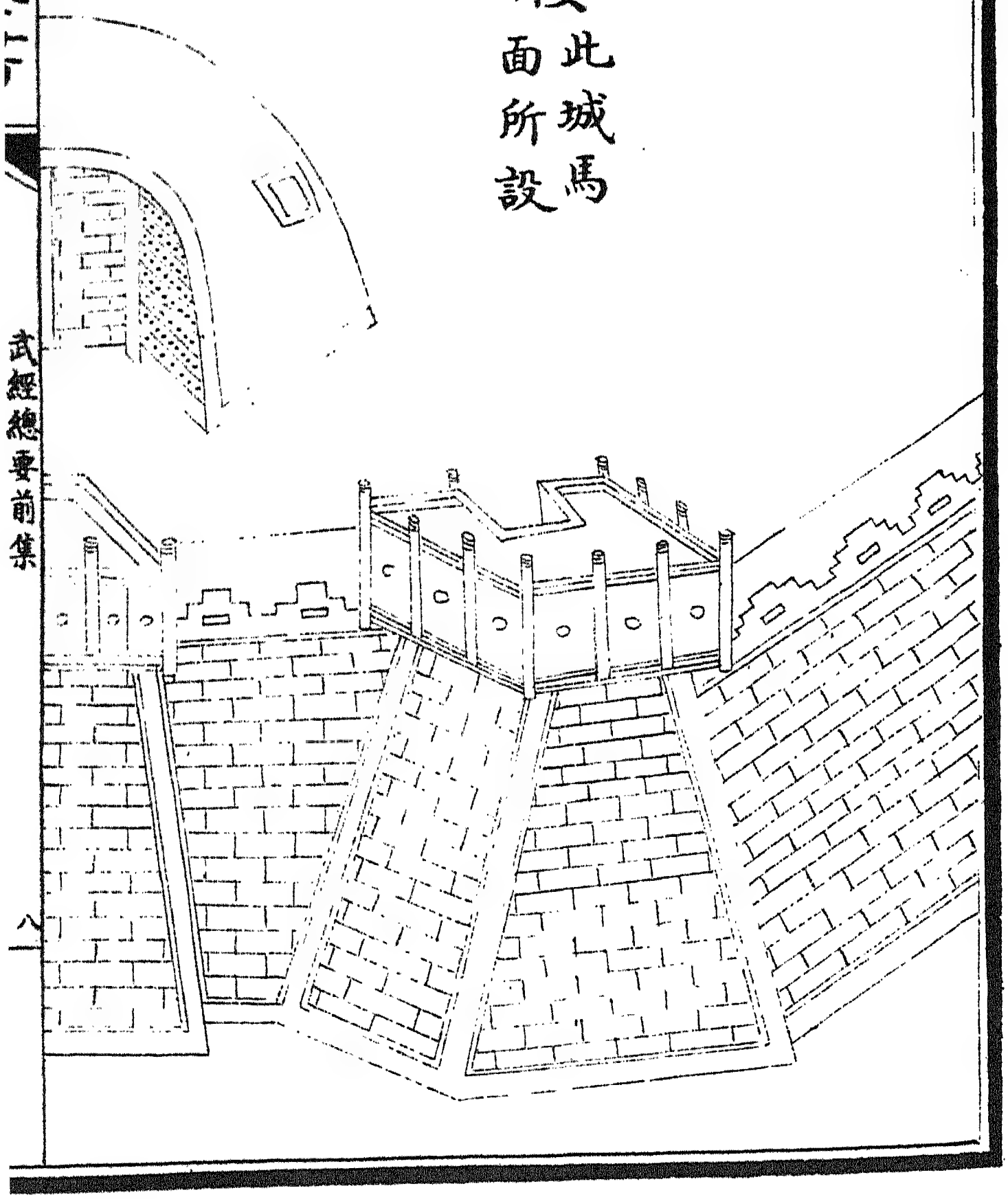
弩臺



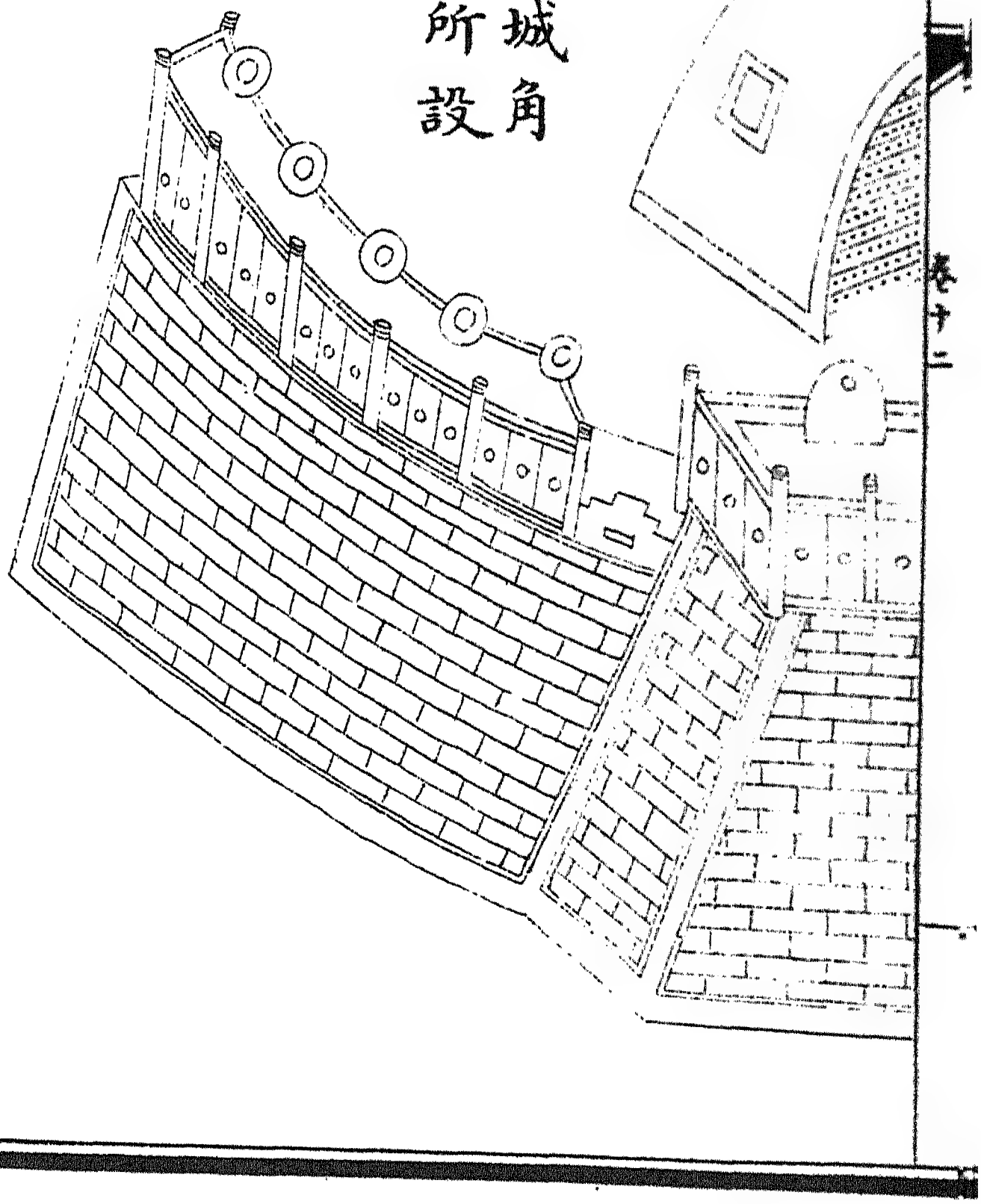


白露屋

敵樓此城馬面所設

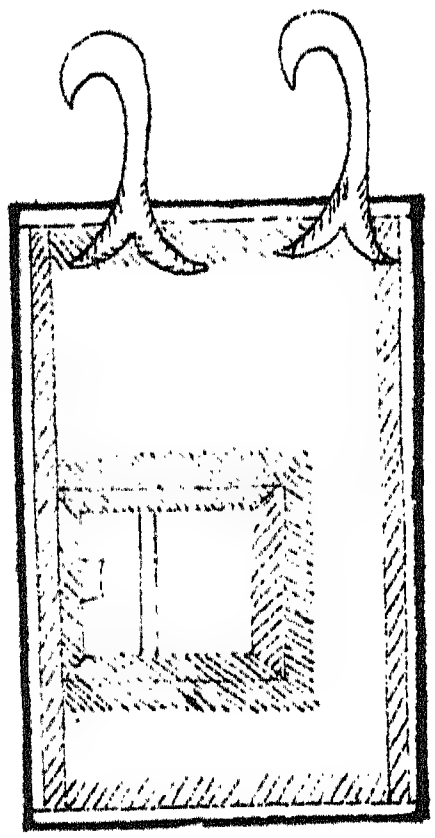


圜樓圖　此城角所設

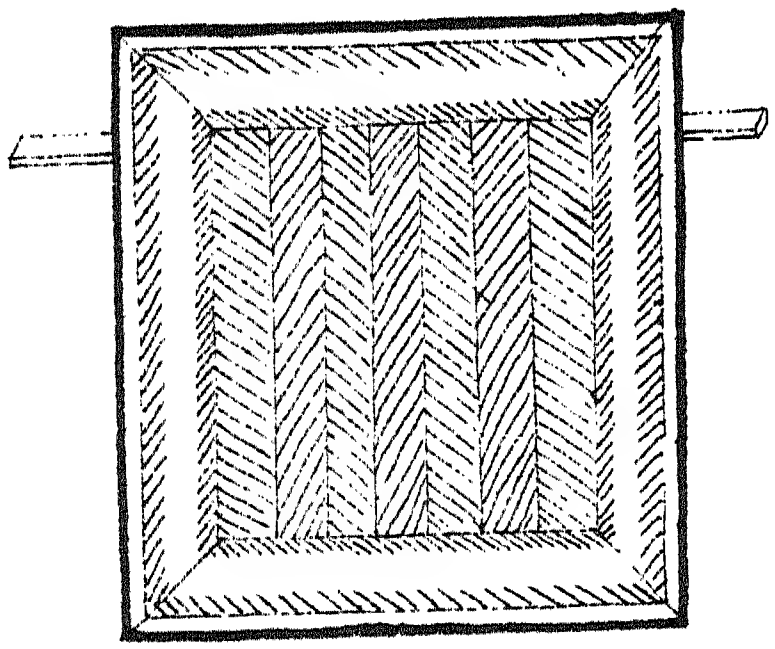


釣橋

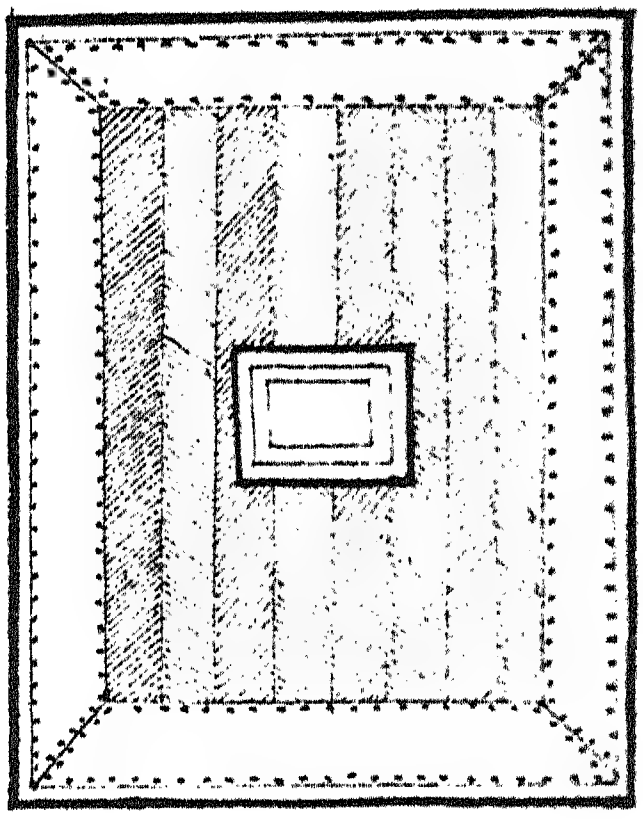
垂鐘板



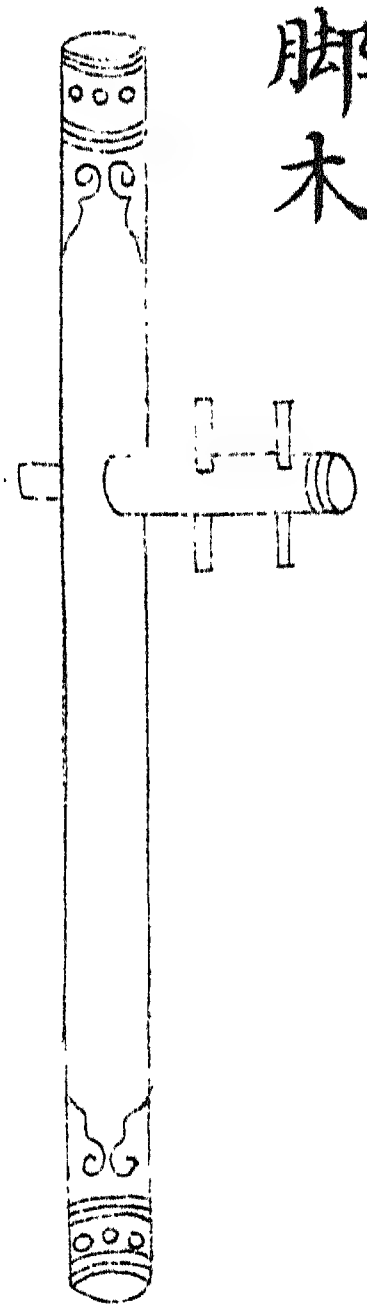
籬　　罳



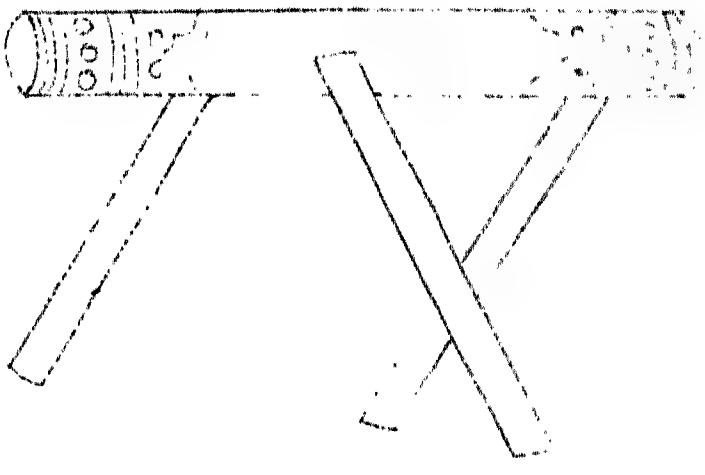
笆竹皮



狗脚木



木馬子



右垂鐘版長六尺闊一尺厚三寸用生牛皮裹開箭牕

施於戰棚前後有伏兎拐子木

篦籬笆以荆柳編成長五尺闊四尺漫以生牛皮背

施横竿長六七尺用於戰棚上則以木馬倚之在女

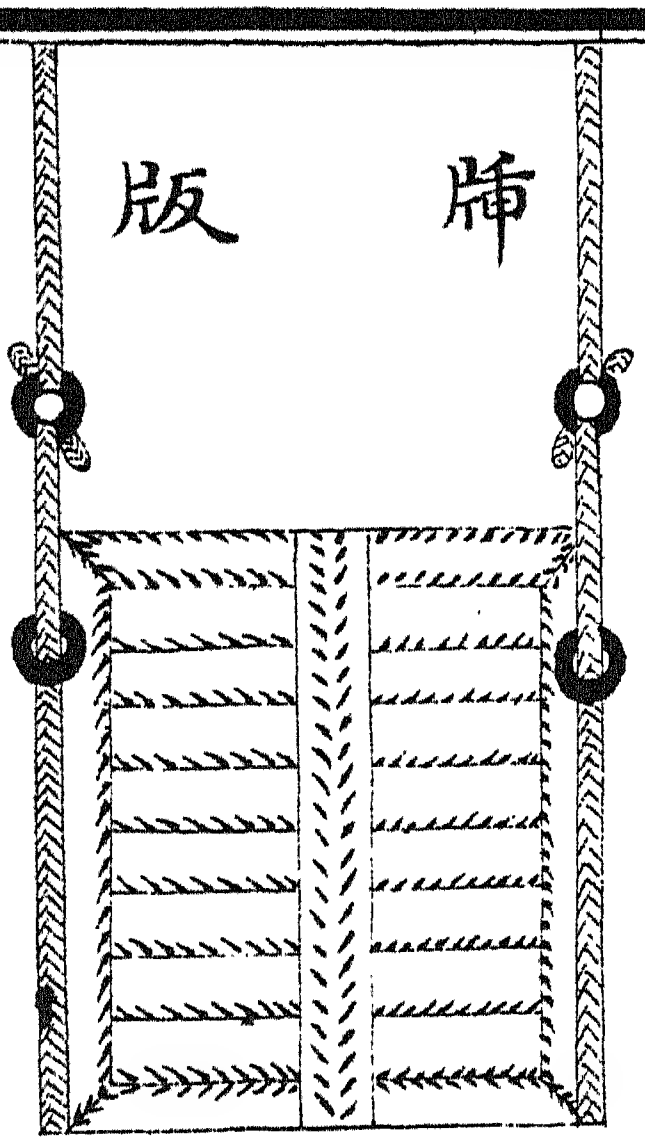
牆外以狗脚木掛之

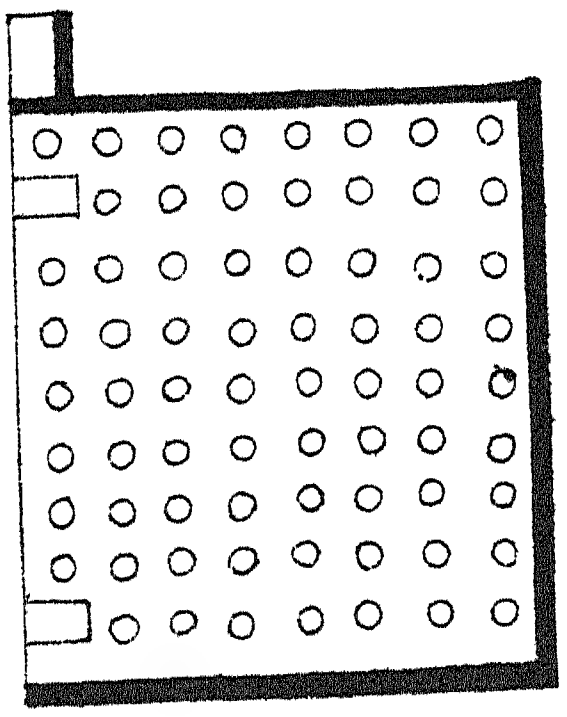
皮竹笆以生牛皮條編江竹為之高八尺闊六尺施

於白露屋兩邊以木馬倚定開箭窻可以射外

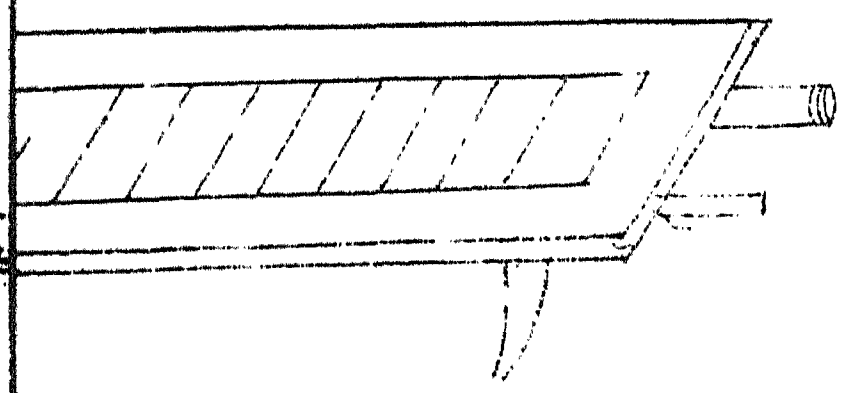
木馬子一横木下置三足高三尺長六尺

版牌

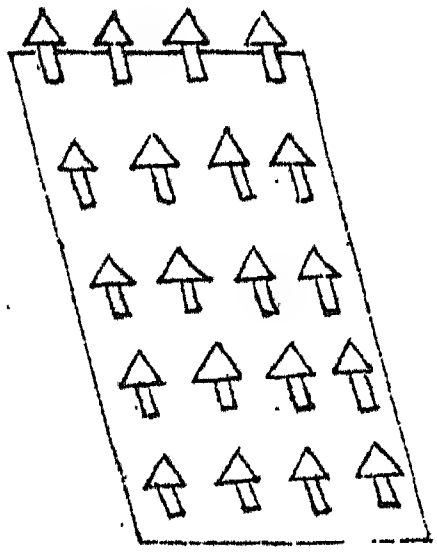




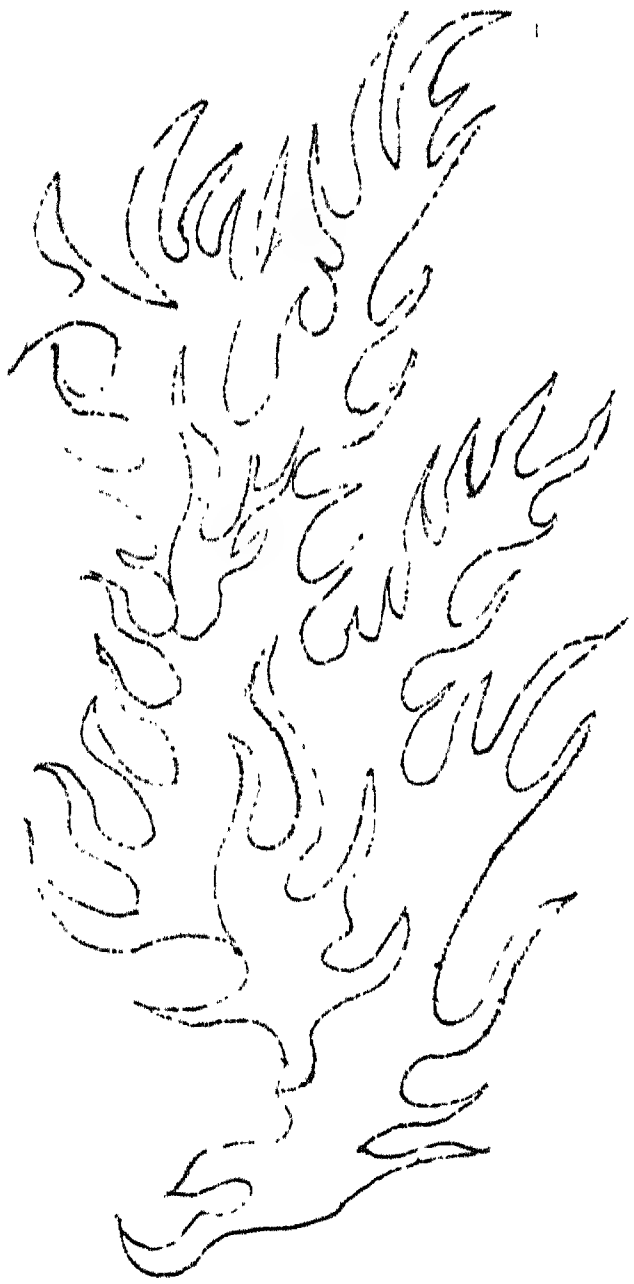
陷馬坑



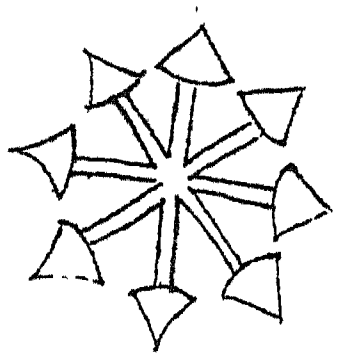
地澁



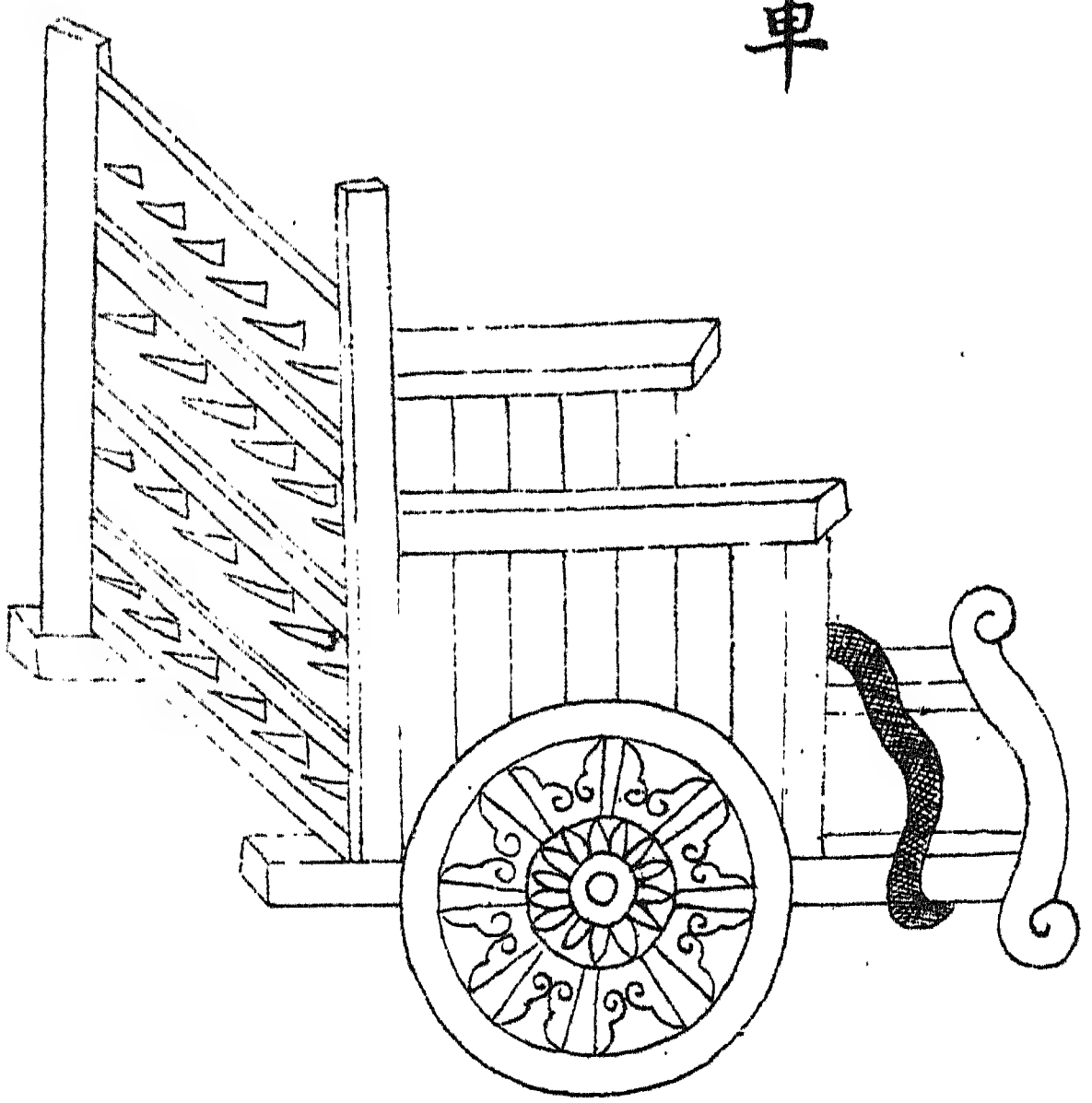
鹿角木



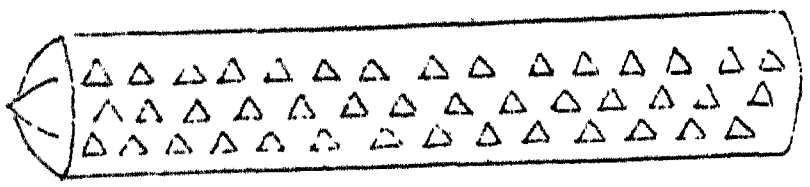
鐵蒺藜



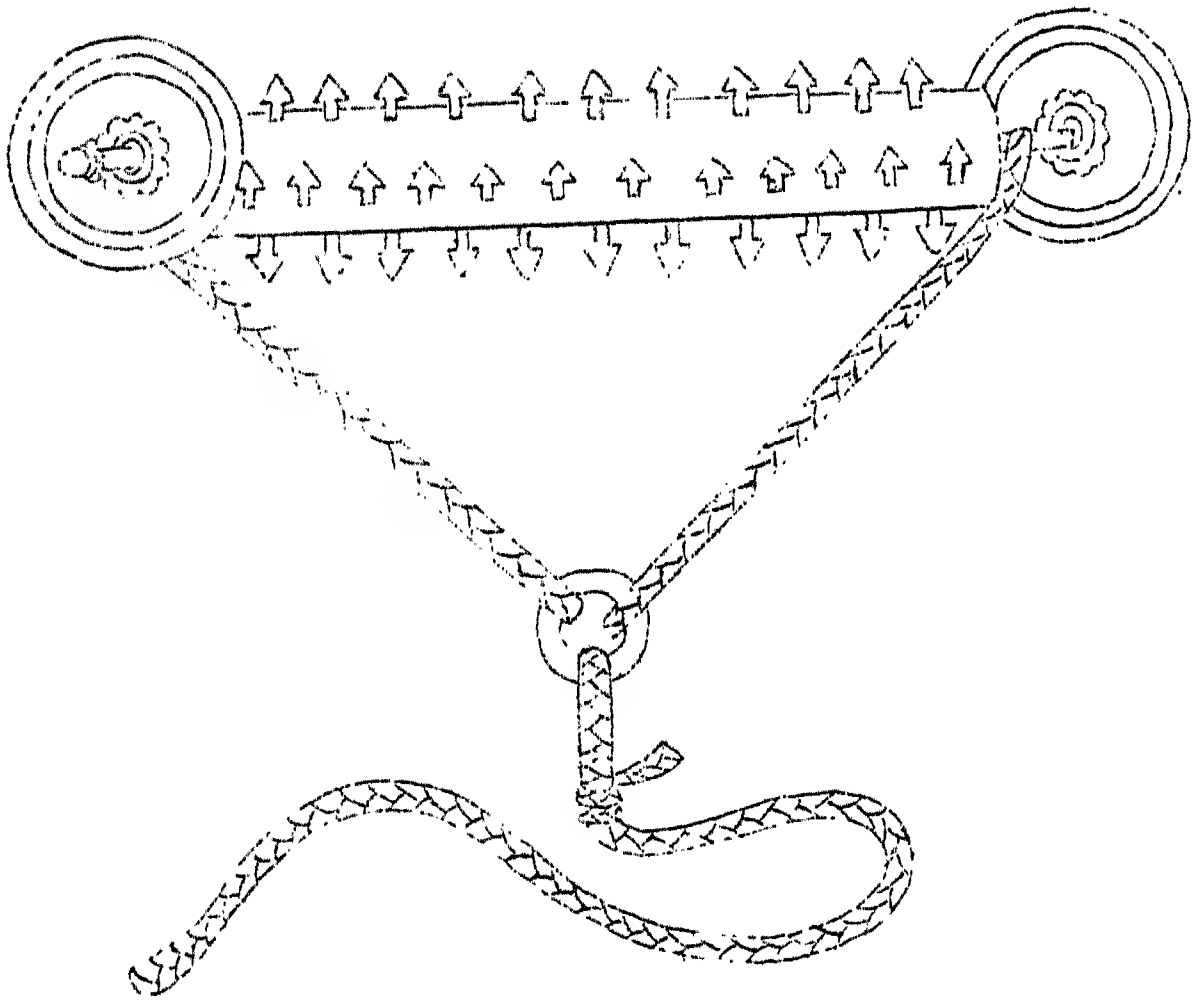
塞門刀車



檑木



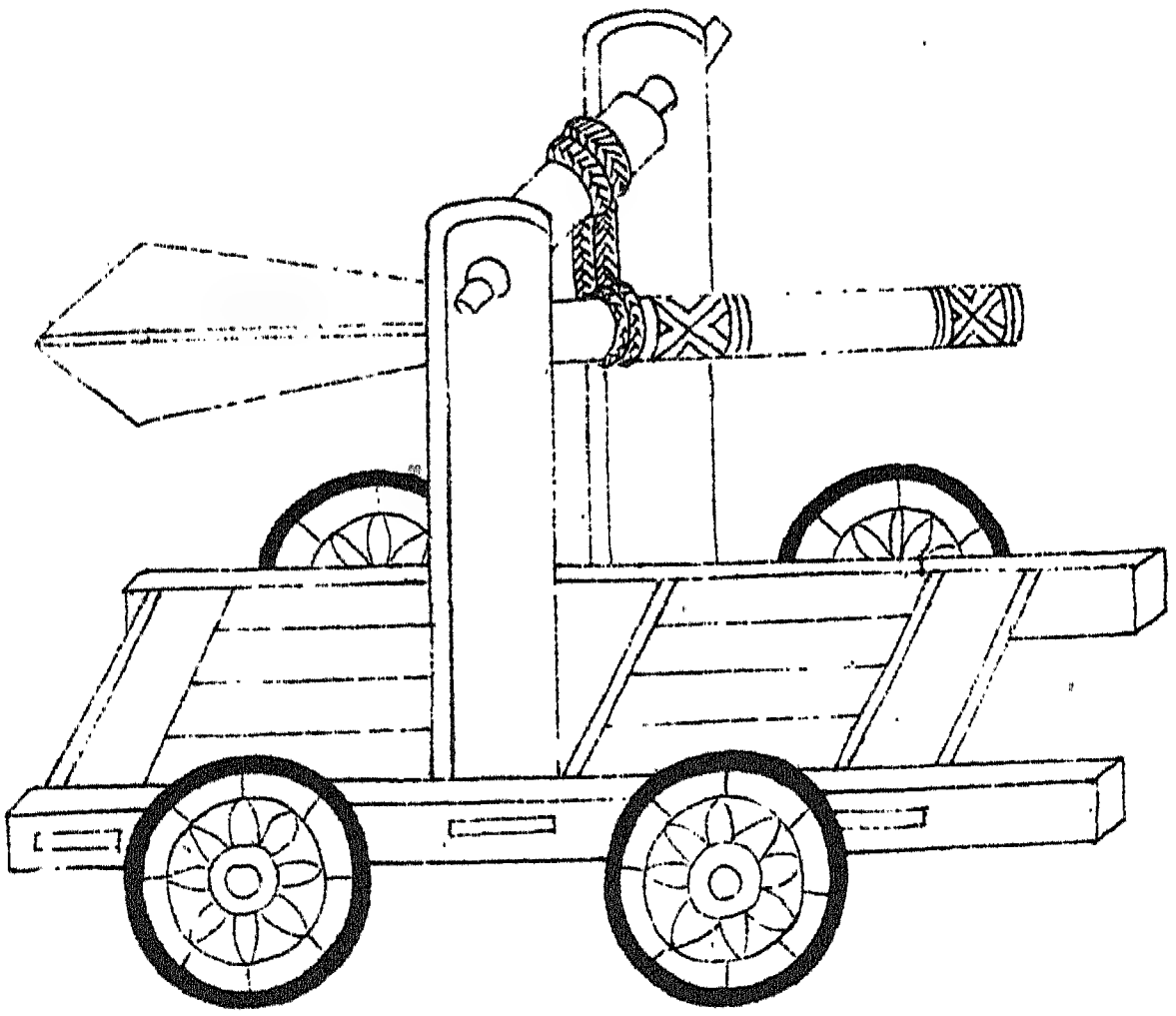
夜檑火



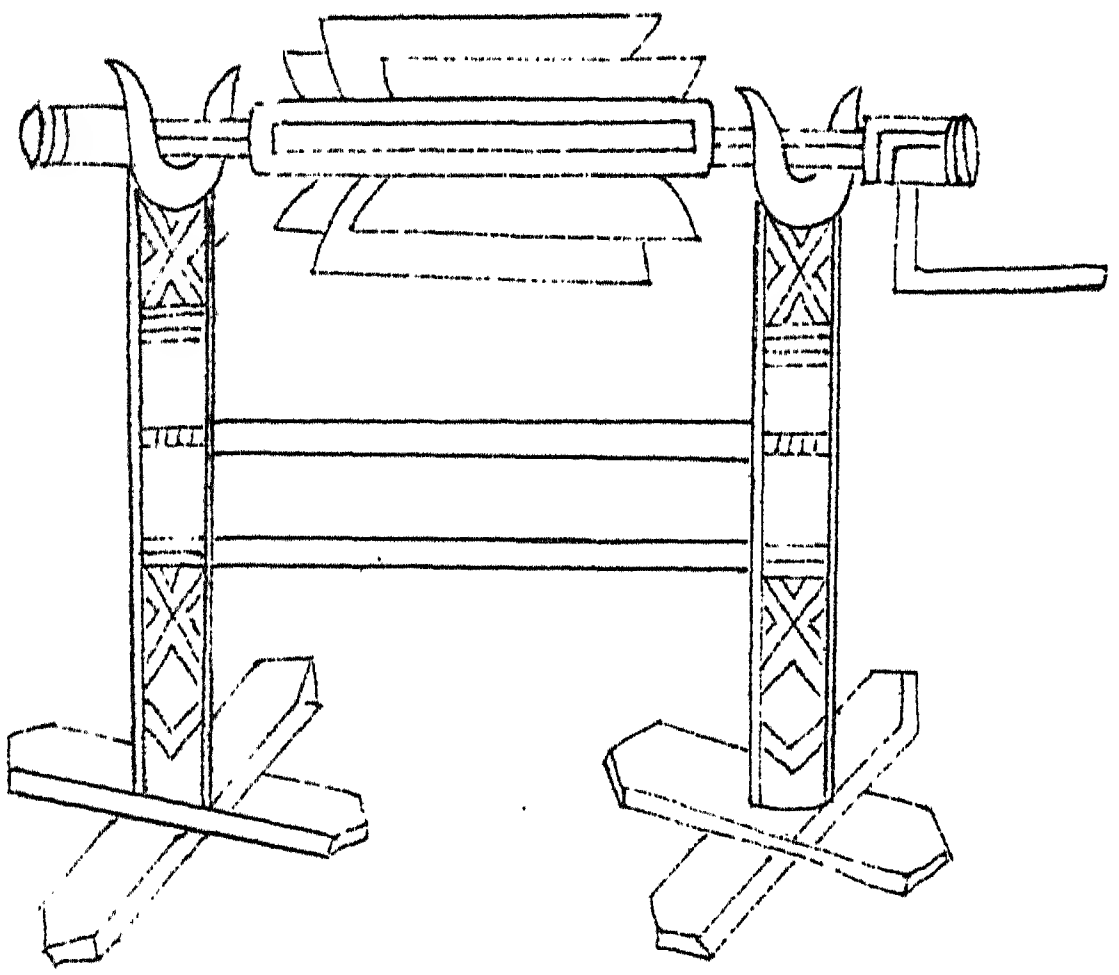
右木檑以木體重者為之長四尺徑五寸
泥檑用緊慢土調泥入猪鬃毛馬尾毛鬣三十斤搗
熟捏成長二三尺徑五寸
塼檑如檑形燒塼為之長三尺五寸徑六寸
車脚檑以繩繫獨輪以絞車放下復收
夜又檑一名留客住用濕榆木長一丈許徑一尺周
回施逆鬚出木五寸兩端安輪脚輪徑二尺以鐵索
絞車放下復收並以擊攻城蟻附者

兩人

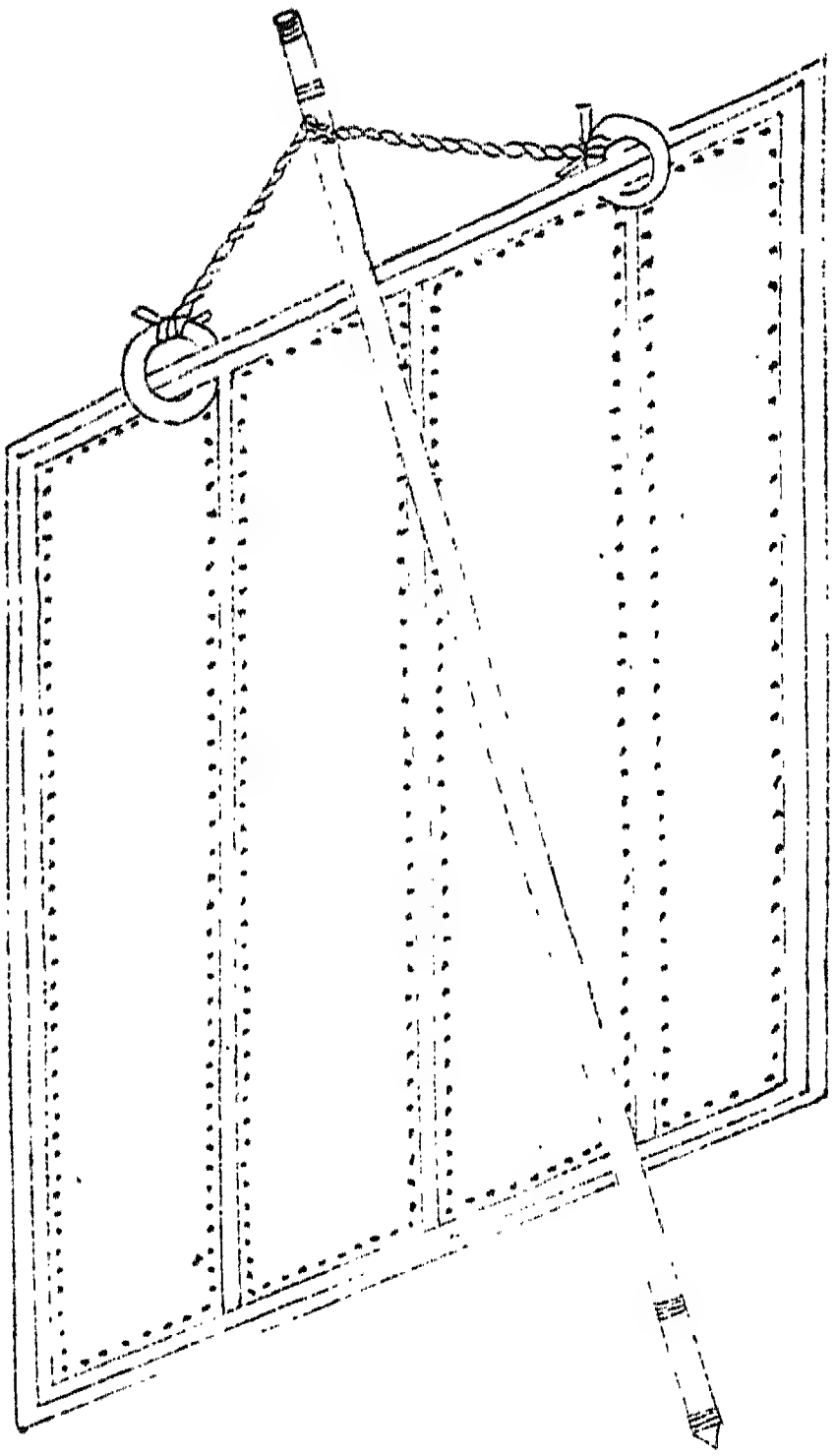
撞車



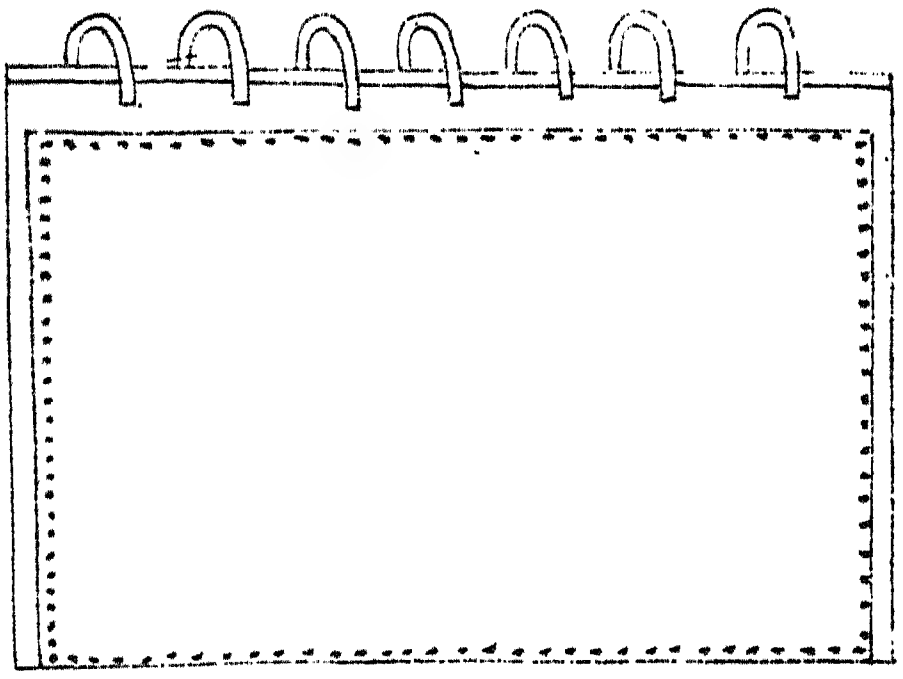
風扇車



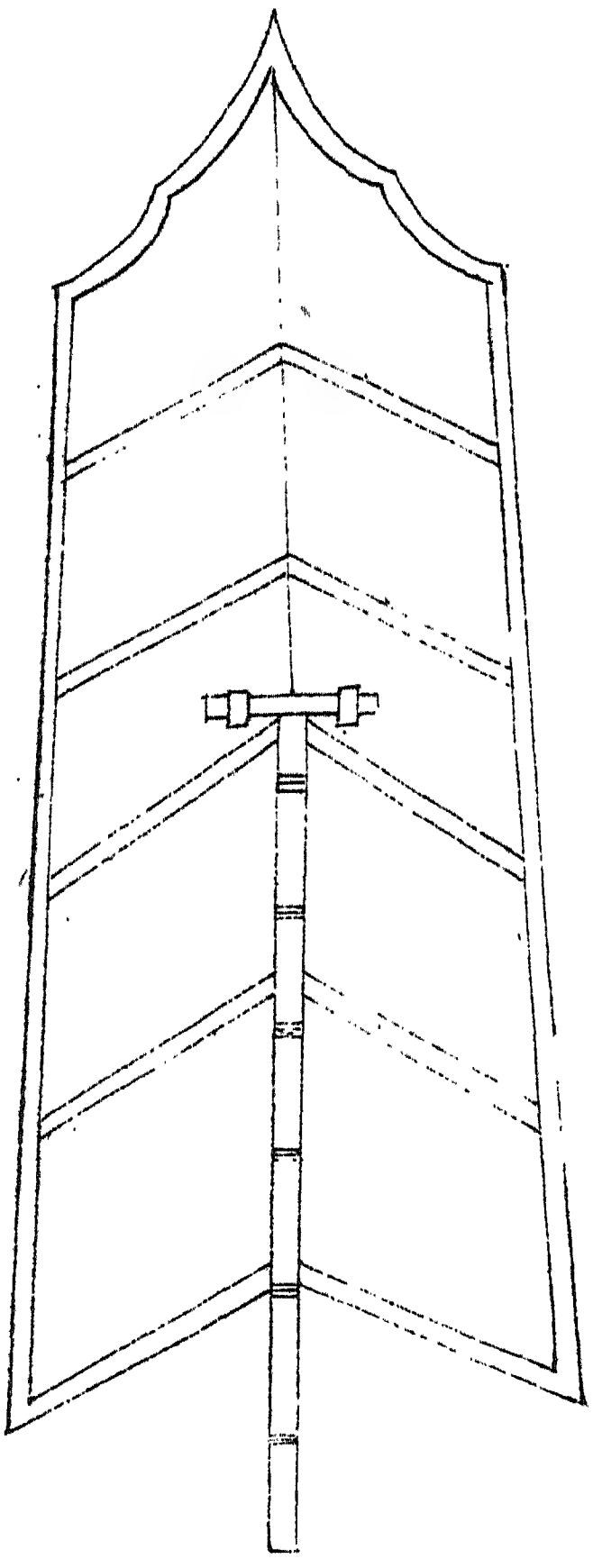
布幔



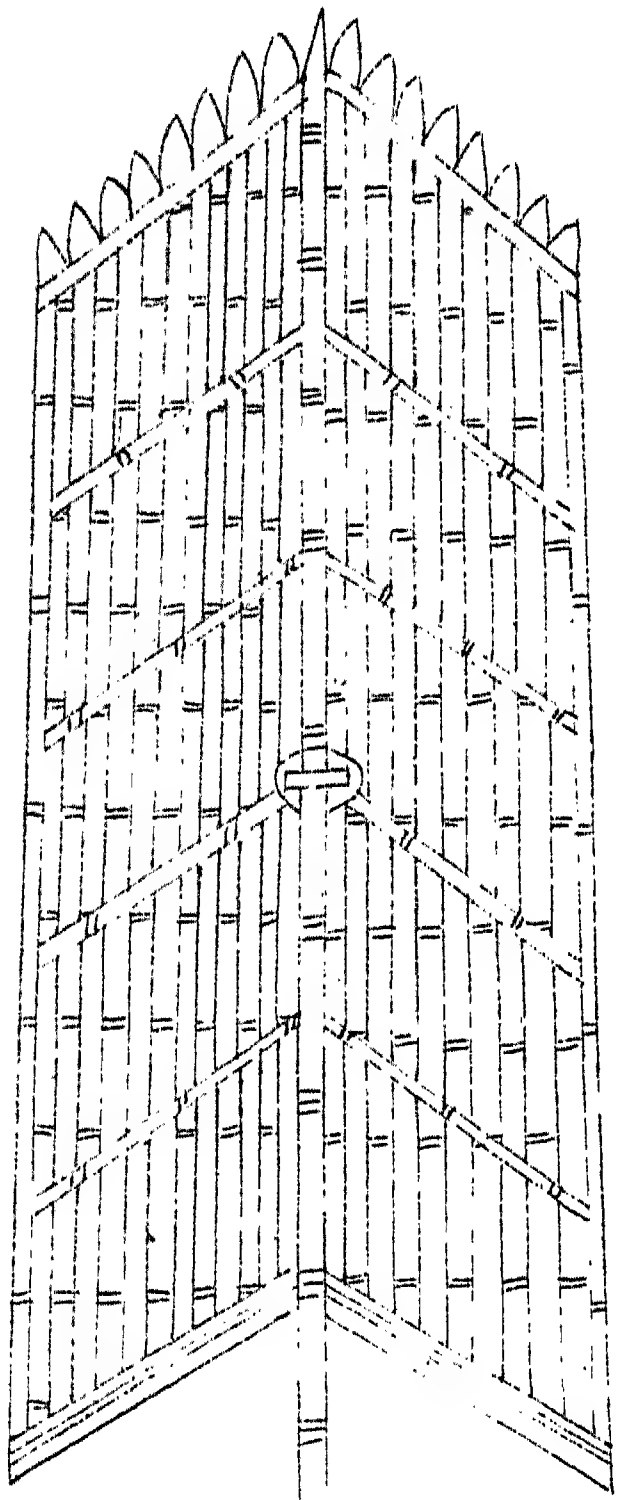
皮簠



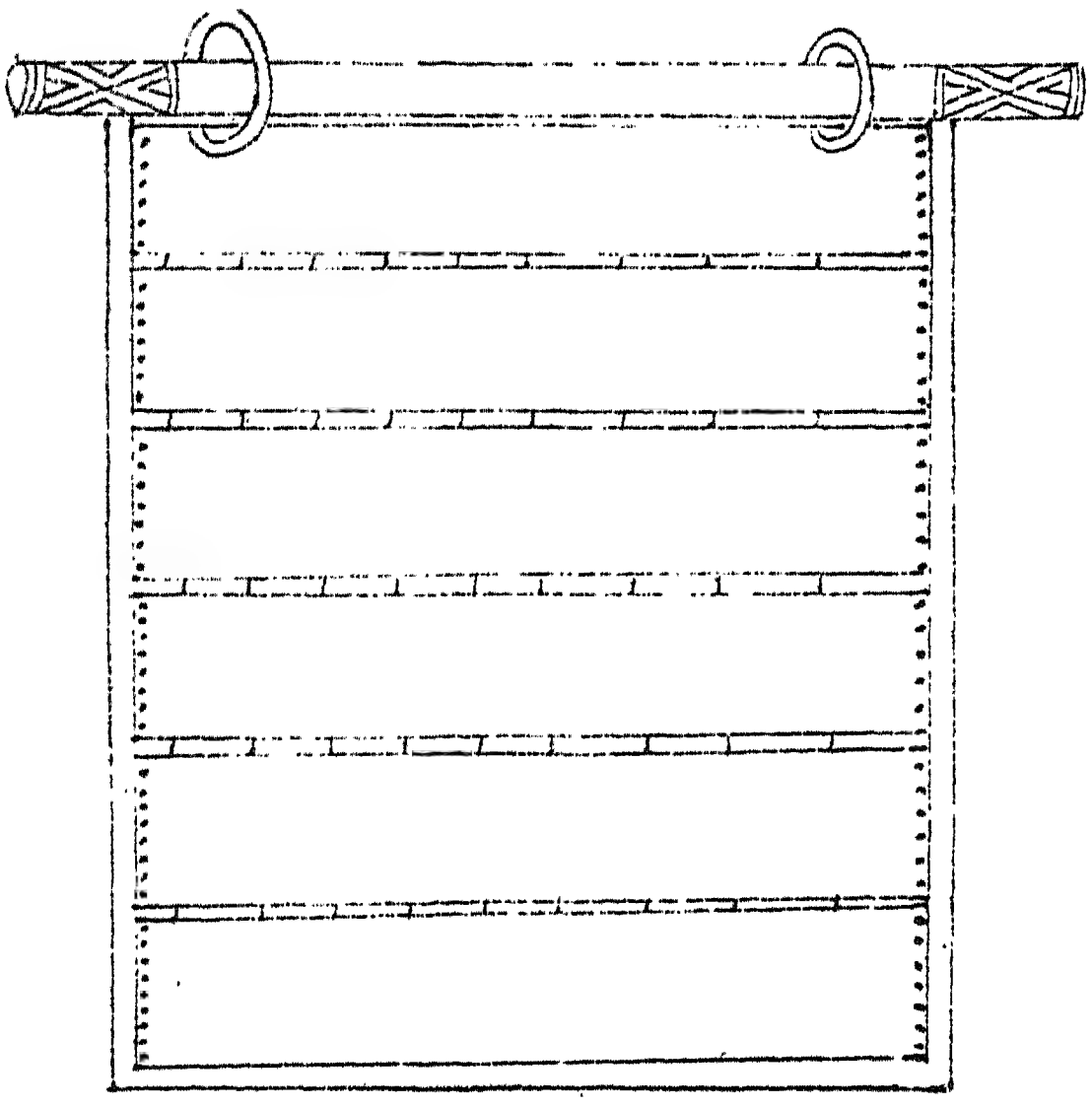
木立牌



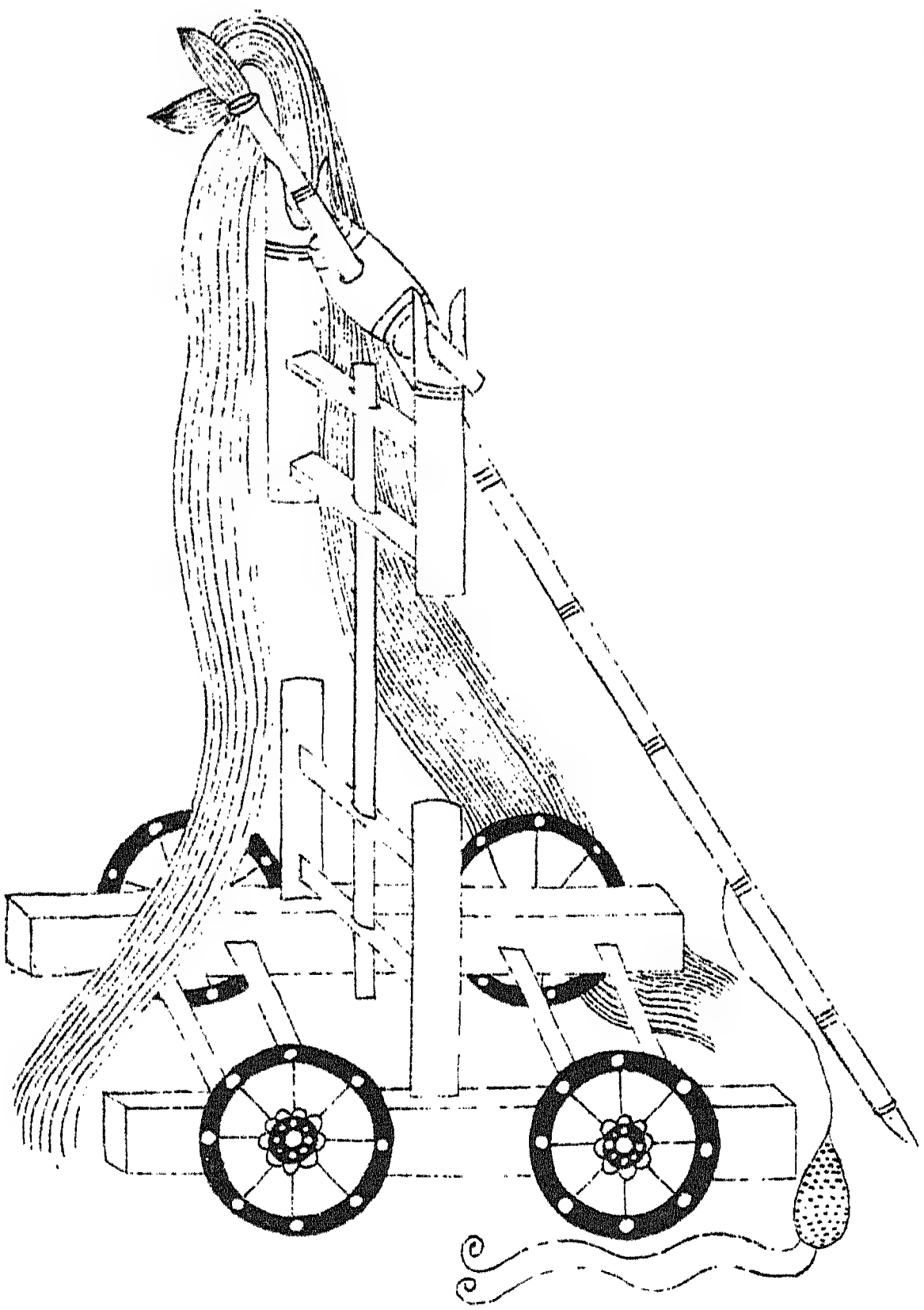
竹立牌



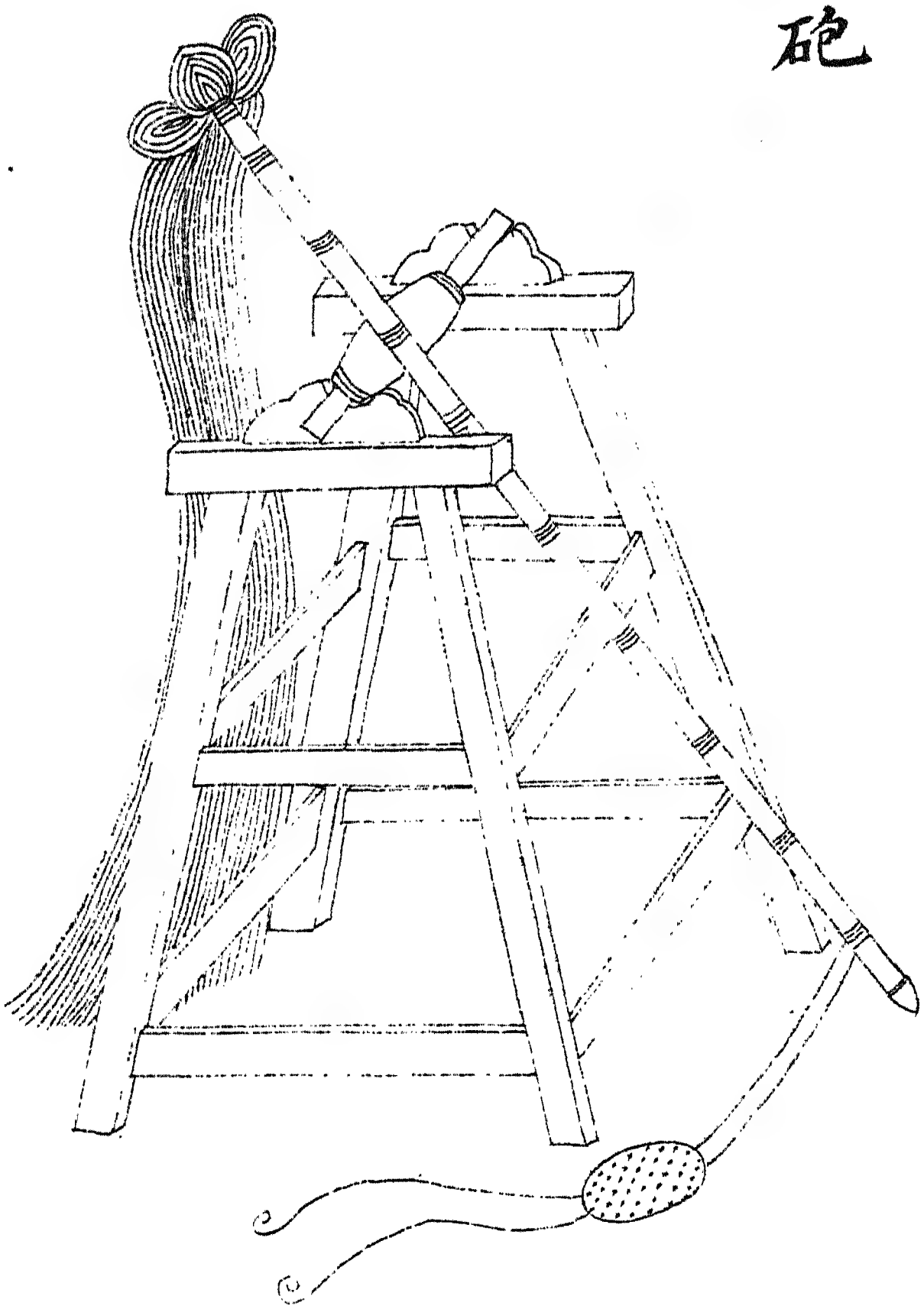
土色氊簾



砲車



單梢砲



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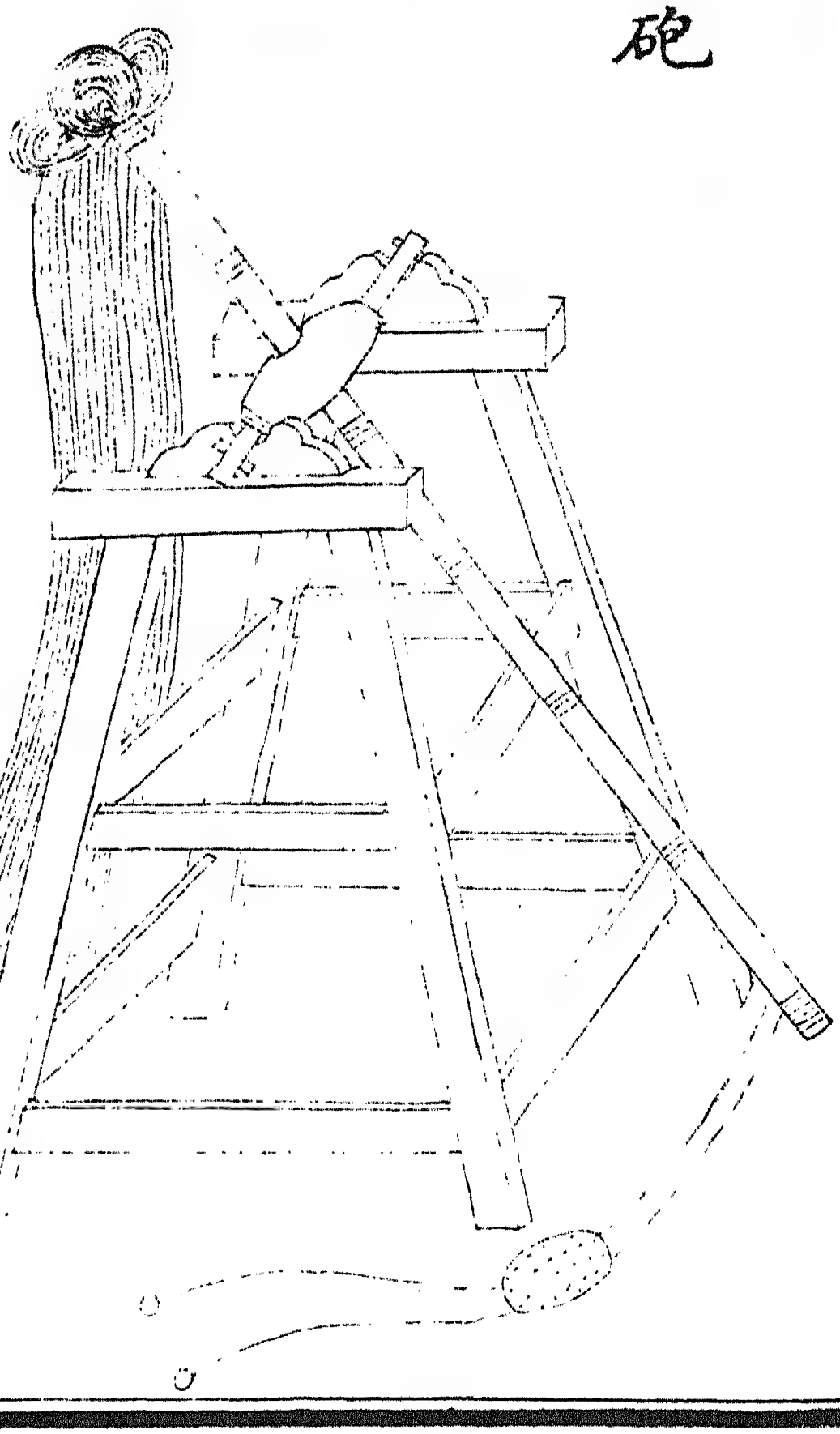
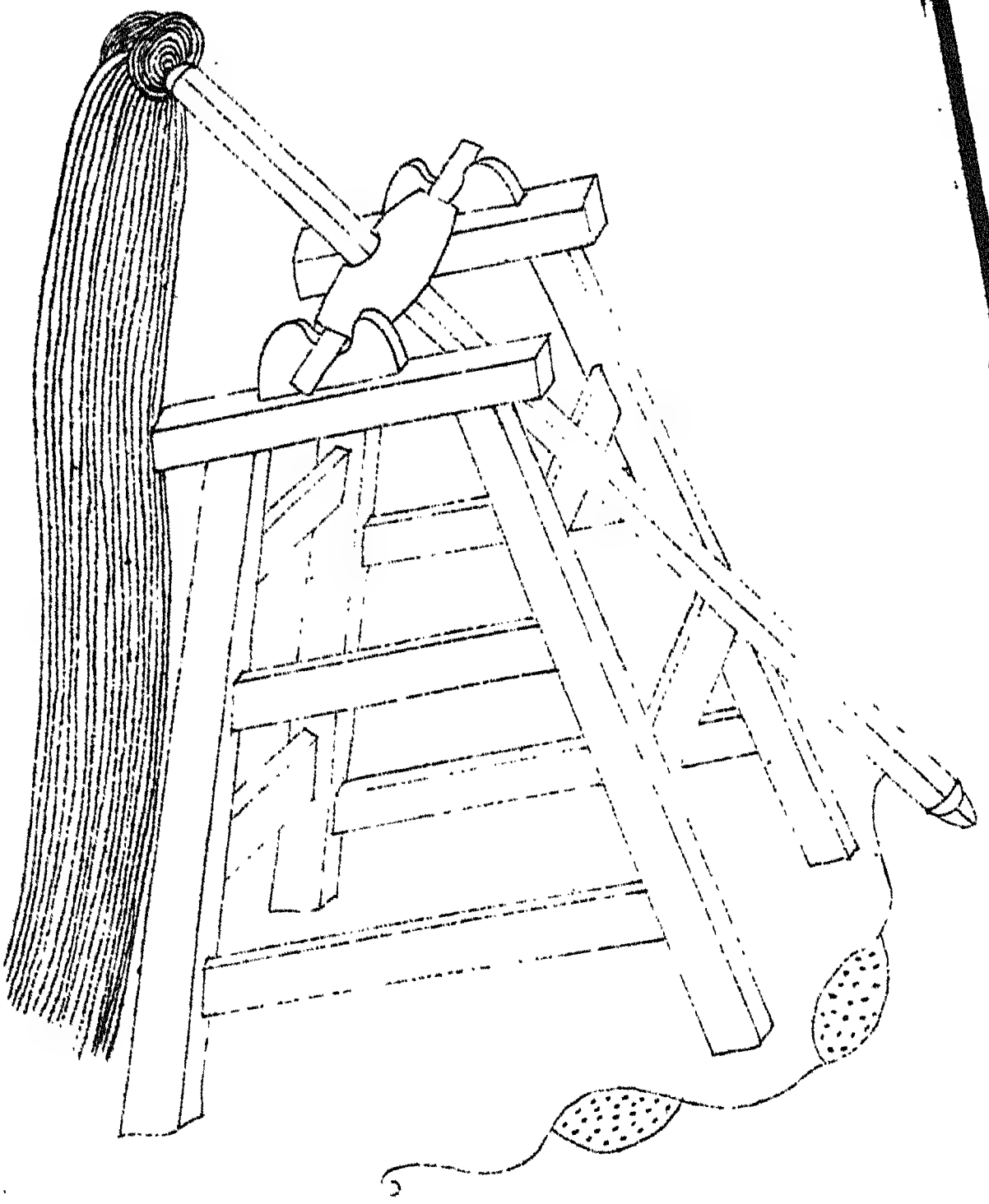
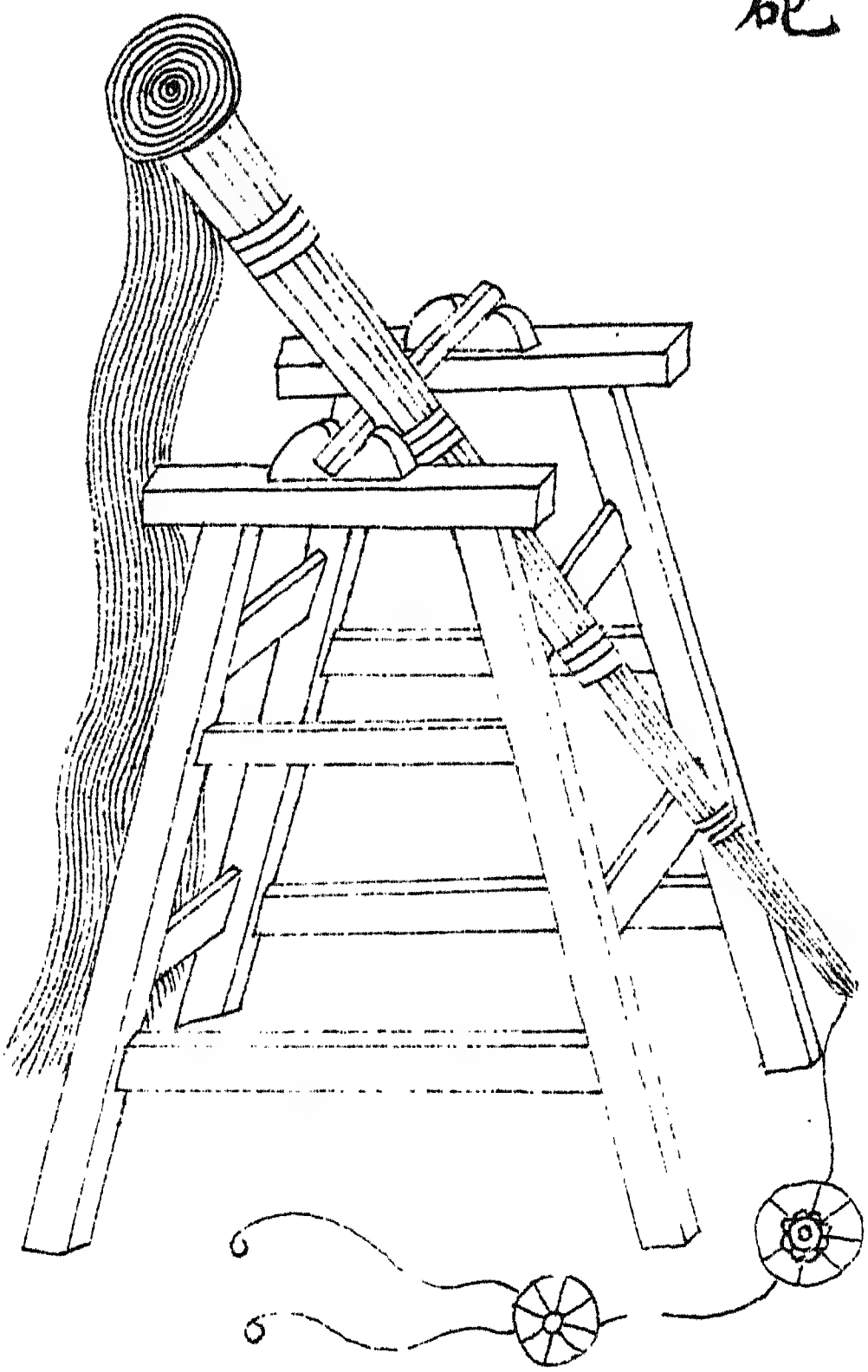


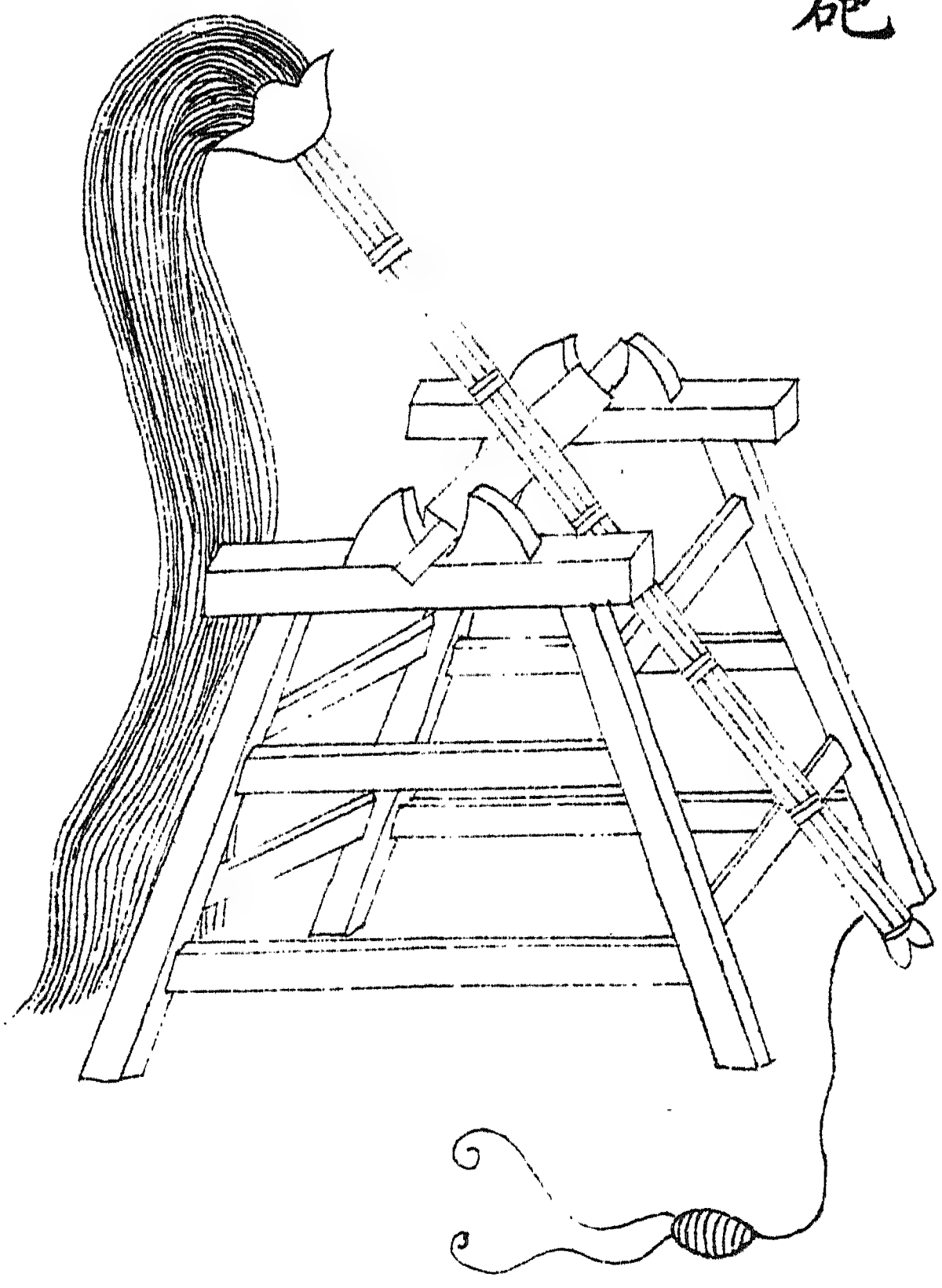
雙梢砲



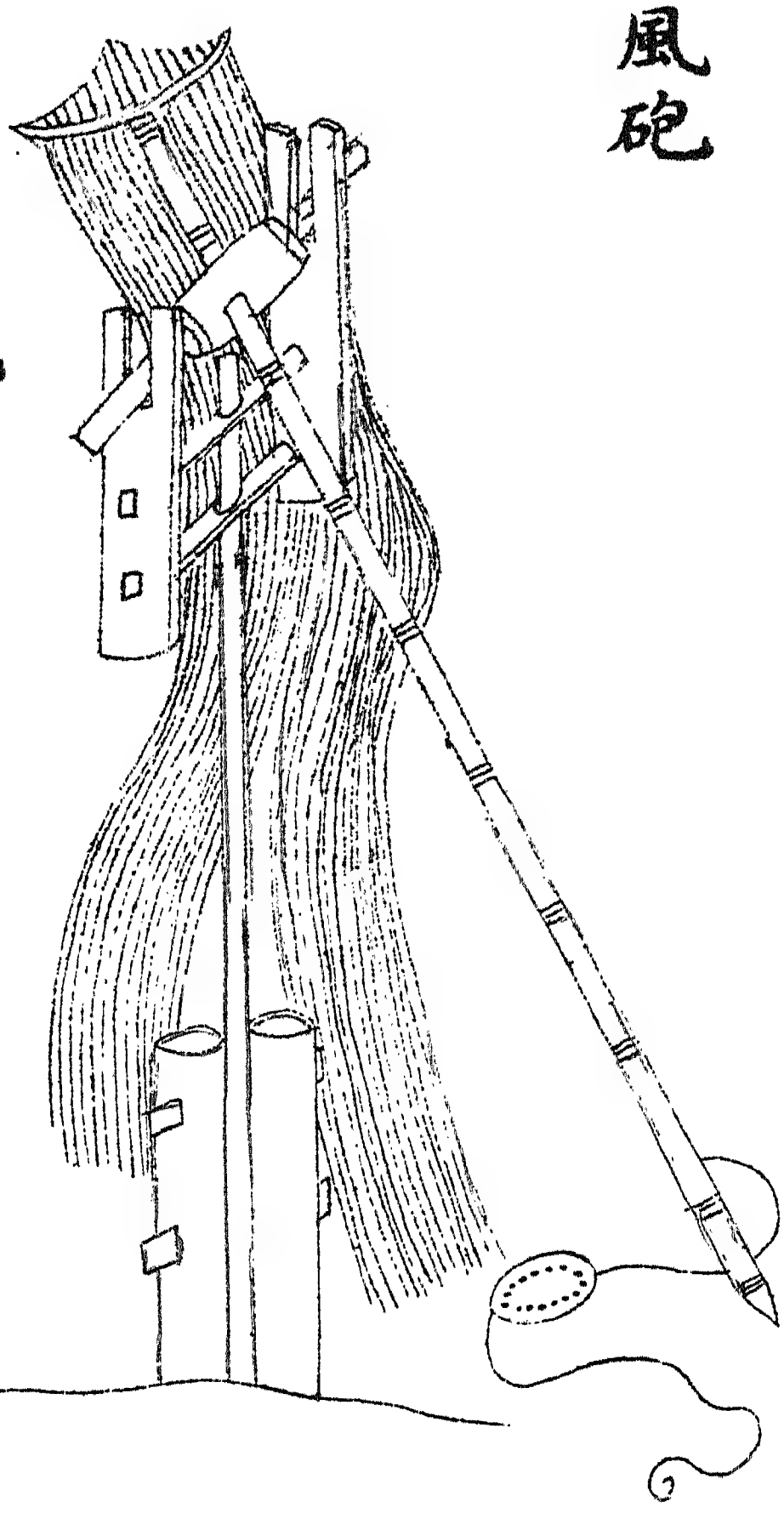
五梢砲



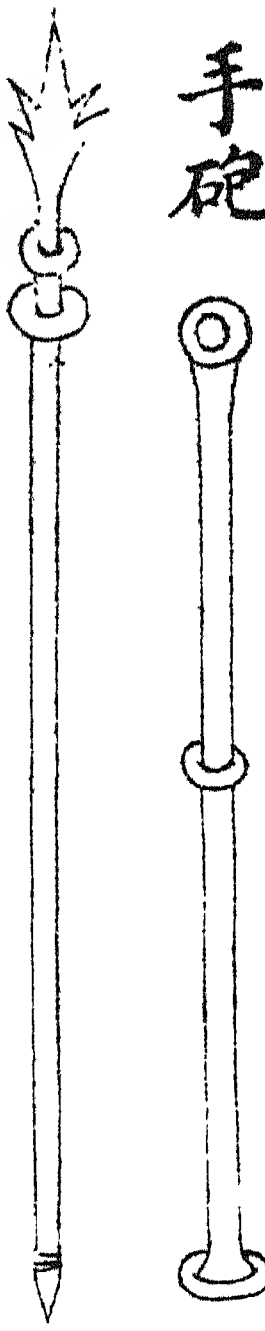
七梢砲



旋風砲



手砲



狼牙釘八紘子一長二丈三尺十二子用麻一斤八兩

皮窩一長八寸闊四寸如鞋底樣皮用八兩

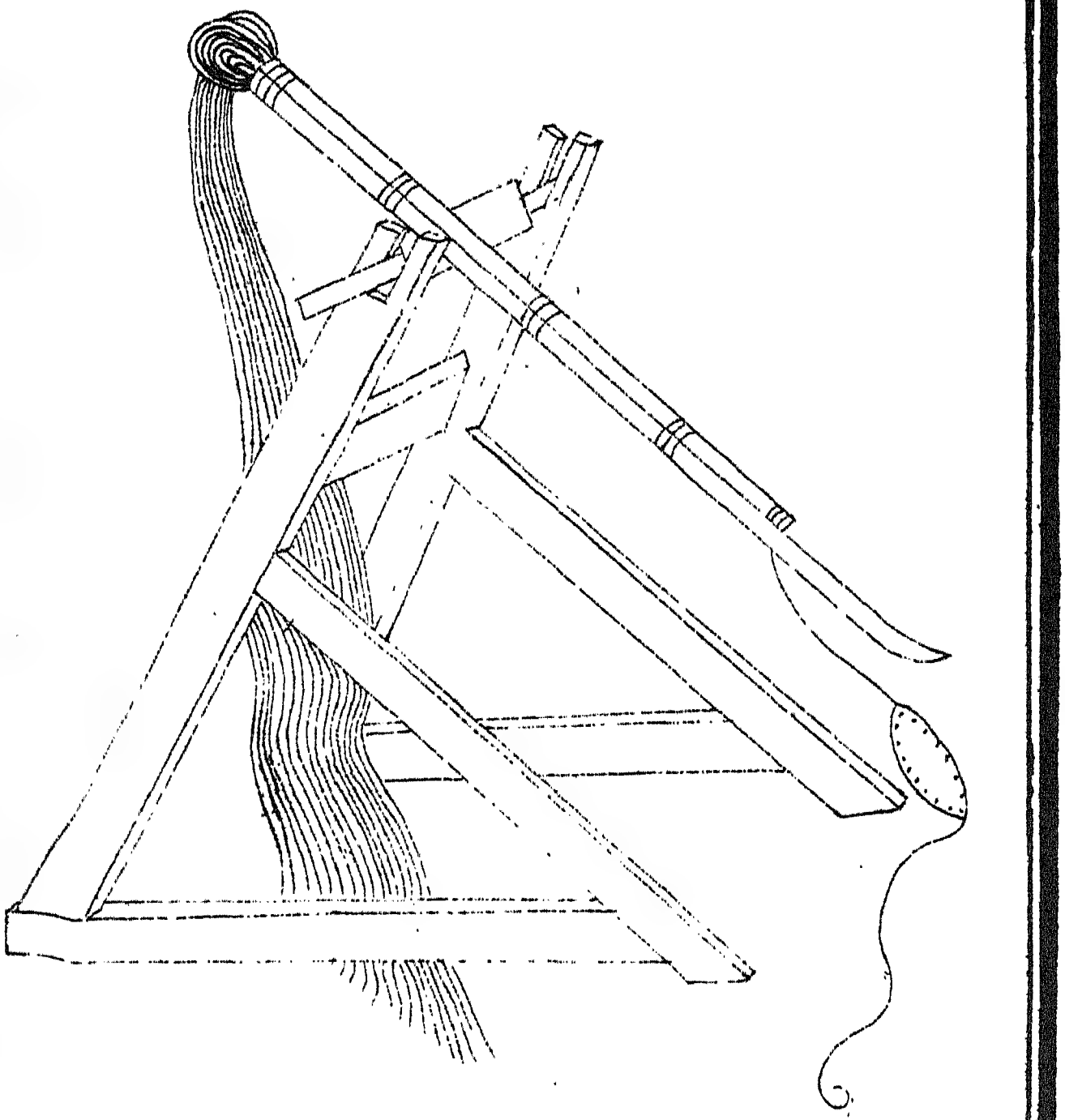
拽索四十長四丈每條用麻四斤

扎索六長四丈每條用麻一斤半

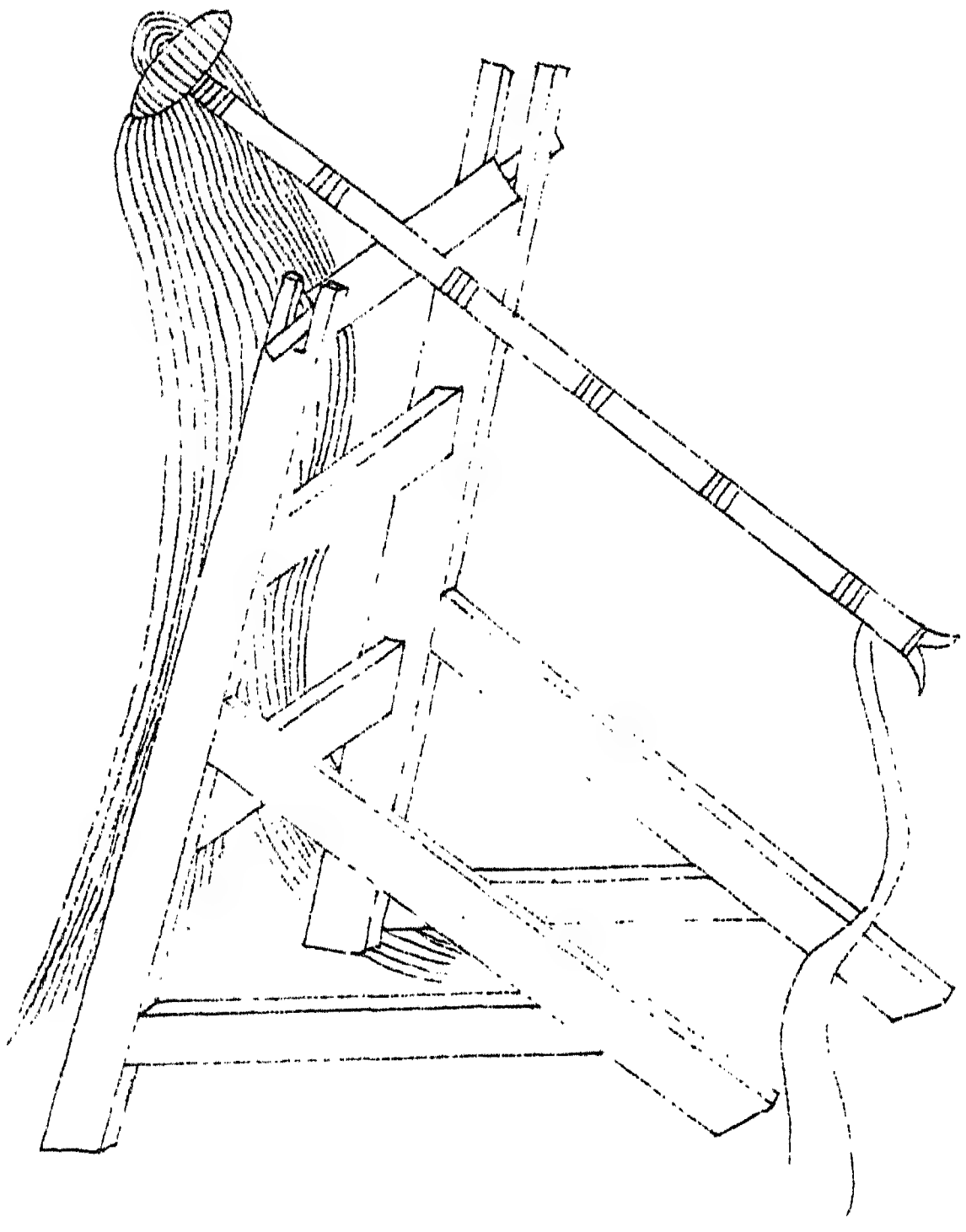
凡一砲用五十人拽一人定放放五十步外石重三斤其柱須埋定即可發石守則施於城上戰棚左右手砲敵近則用之

砲竿一長八尺

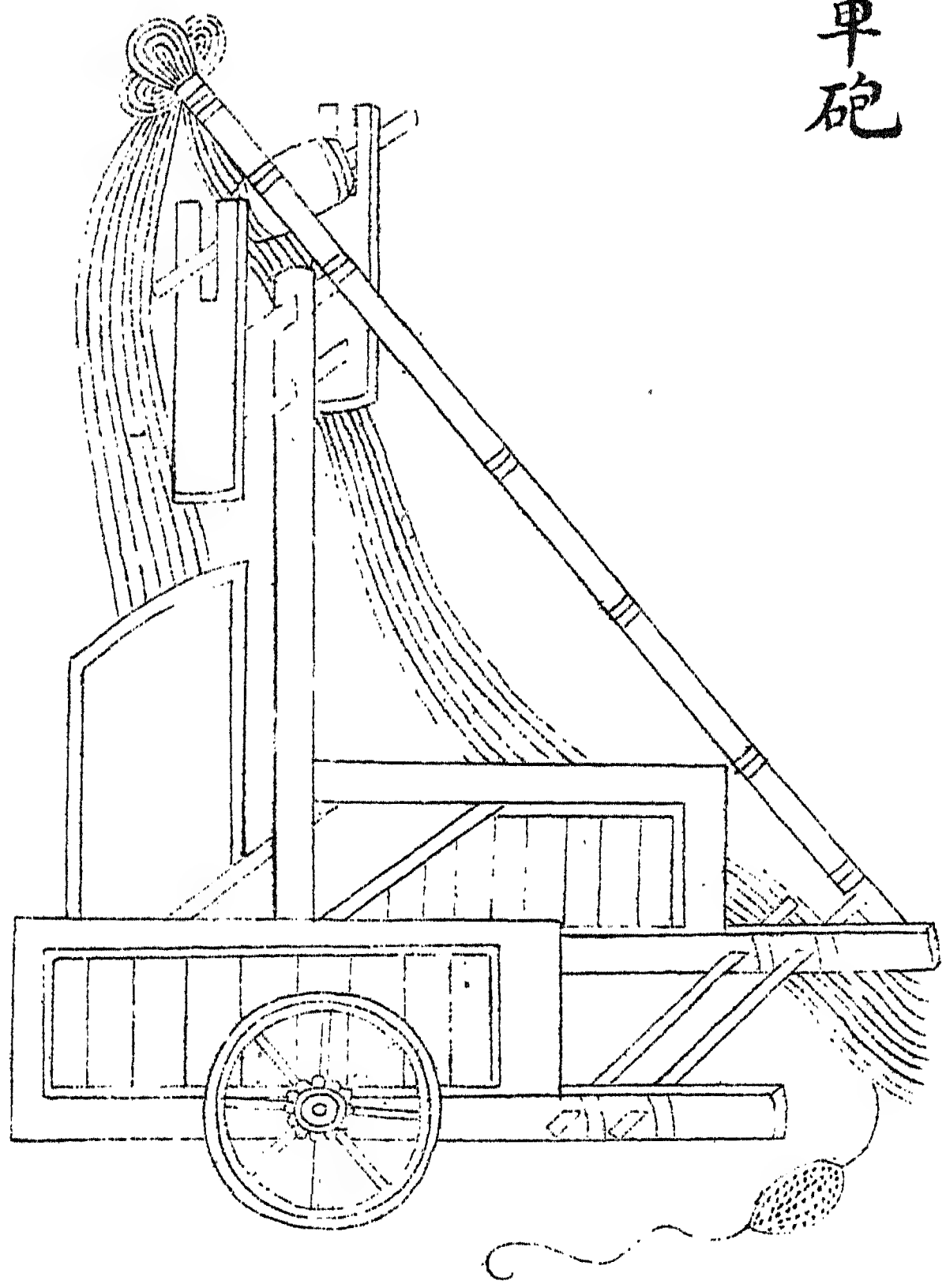
虎蹲砲



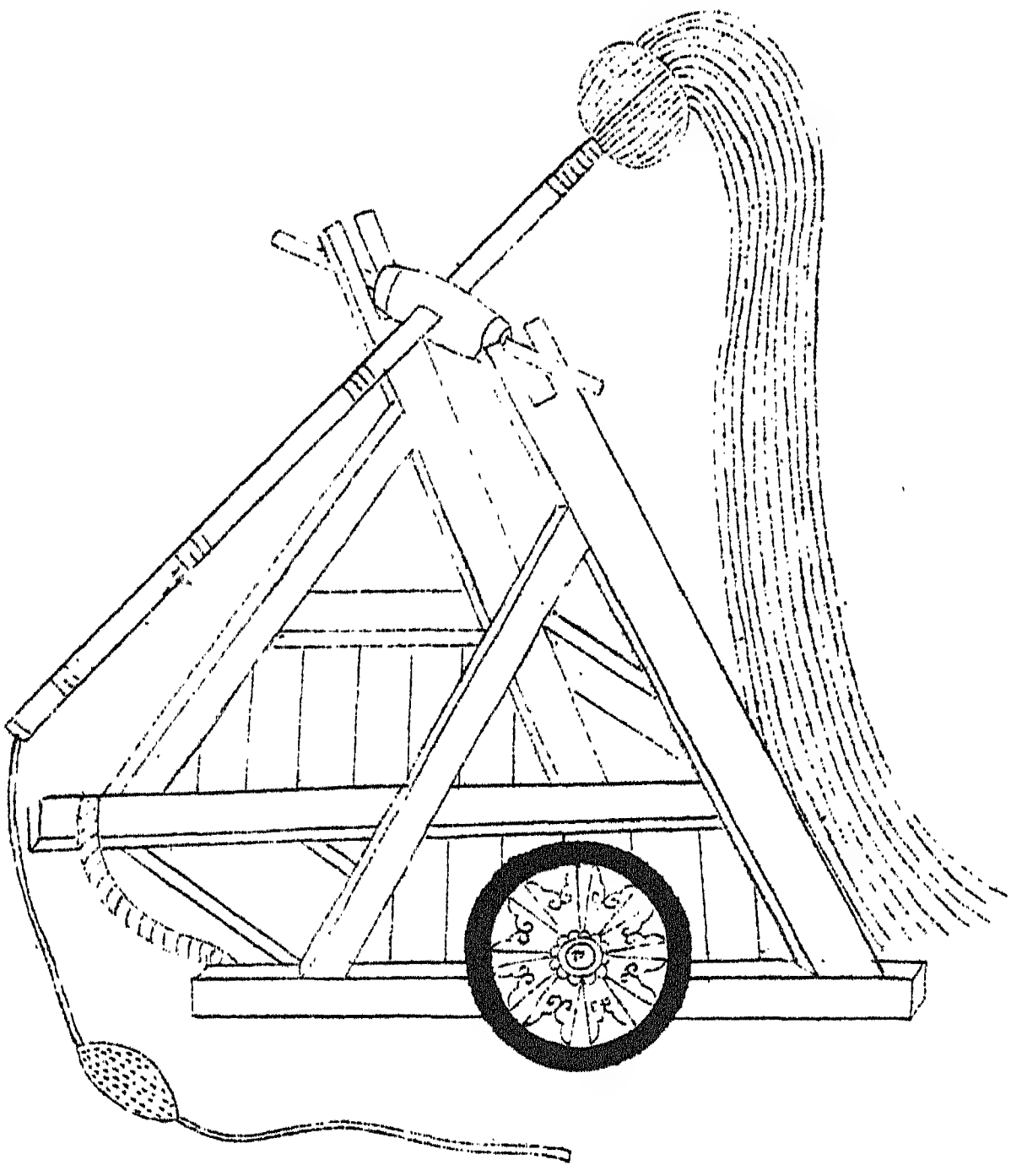
拄腹砲



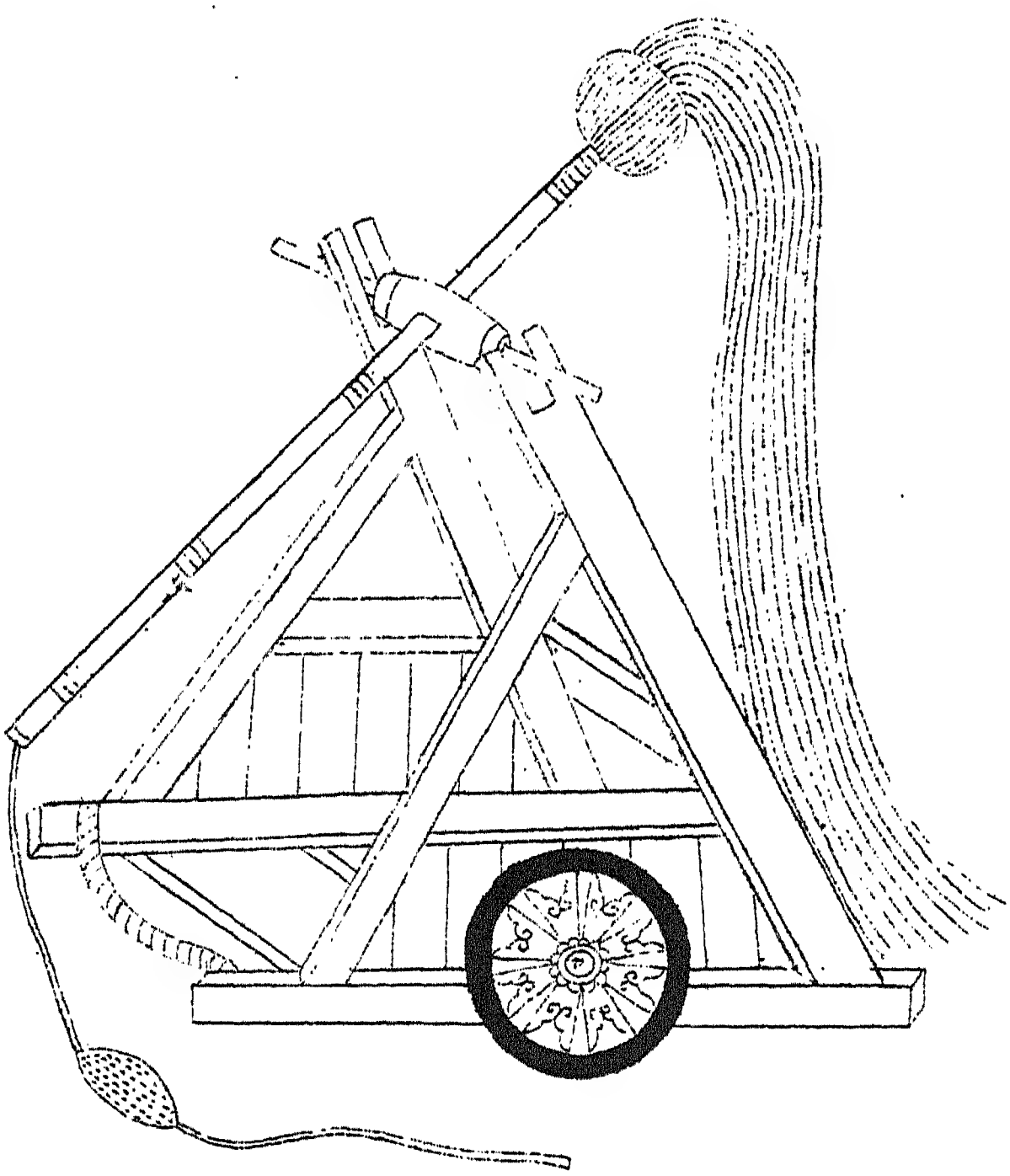
旋風車砲



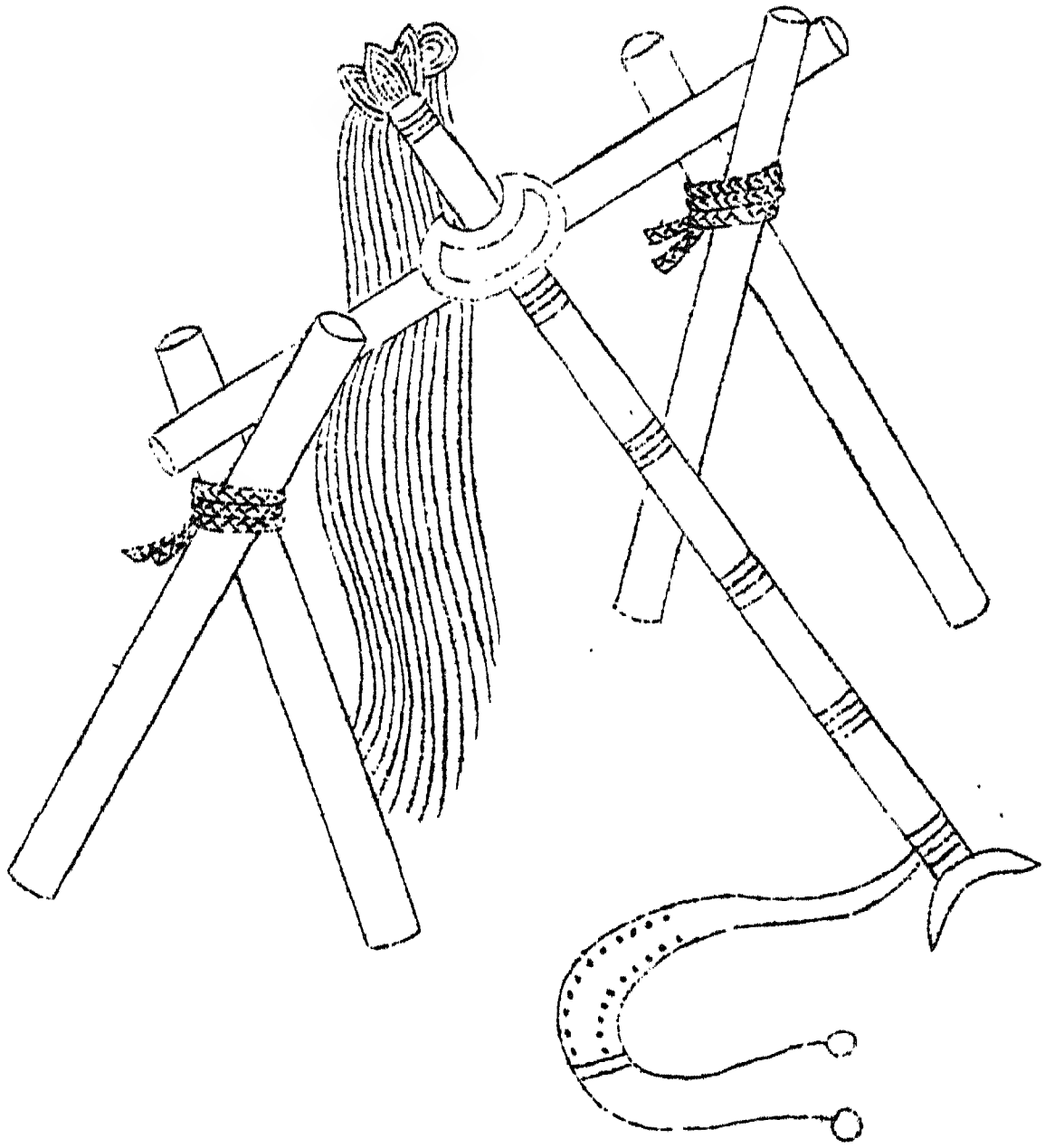
砲行車



砲行車



砲合



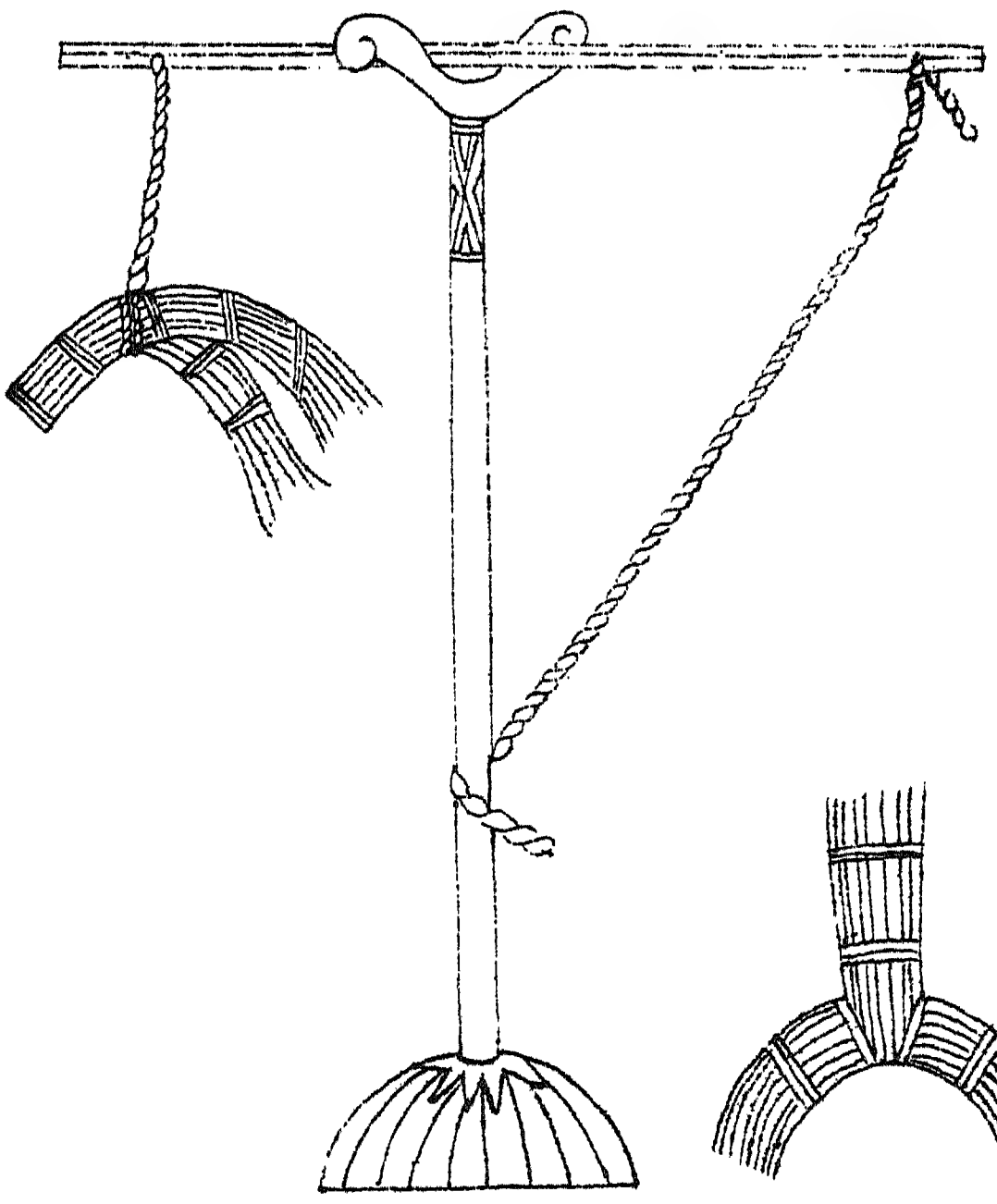
凡砲中之利器也攻守師行皆用之守宜重行宜輕故旋風單梢虎蹲師行即用之守則皆可設也又陣中可以打其隊兵中其行伍則不整矣若熕弩糧積聚及城門敵棚頭車之類則上施火毬火鷄火槍以放之推車梢不可放以其力小故也其火毬等重及十二斤

隨砲動用

長木十二根長一丈徑三寸簽頭木一十二條

木杠四條　大斧三具　界索滑椓四十條

飛炬



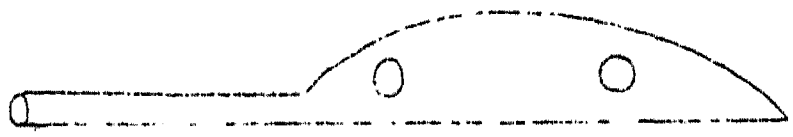
燕尾炬

右燕尾炬束葦草下分兩岐如燕尾以脂油灌之發火自城上縋下騎其木驢板星燒之

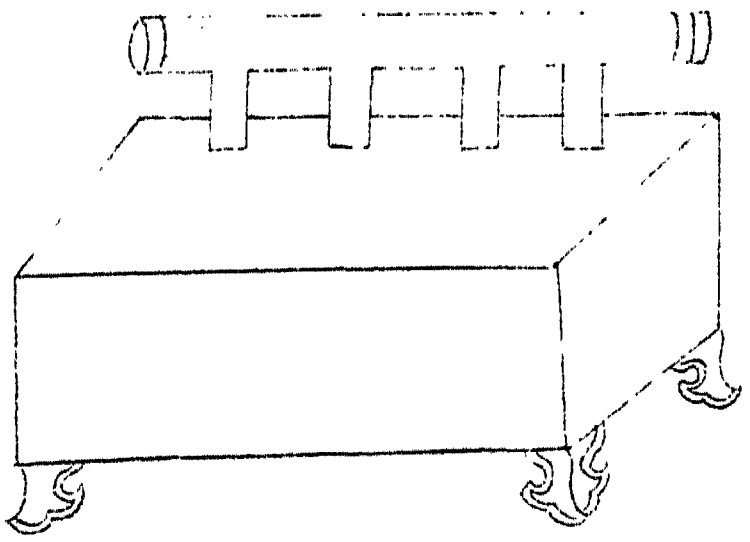
飛炬如燕尾炬城上設桔槹以鐵索縋之下燒攻城蟻附者

鞭箭用新青竹長一丈徑寸半為竿下施鐵索梢繫絲繩六尺別削勁竹為鞭箭長六尺有鏃度正中施一竹臬（亦謂之鞭子）放時以繩鉤臬繫箭于竿一人搖竿為勢一人持箭末激而發之利在射高中人如短兵

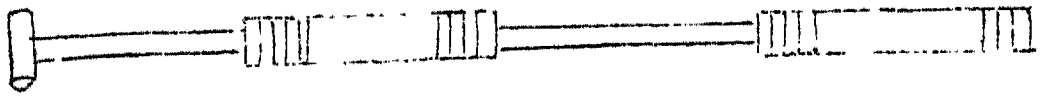
火　樓



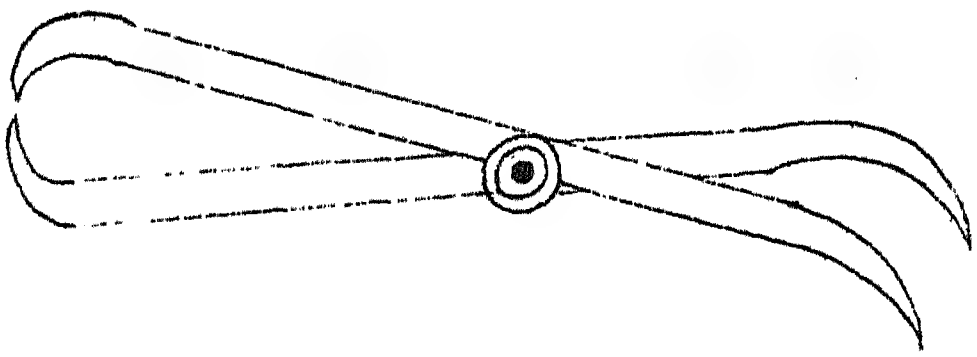
筒　横



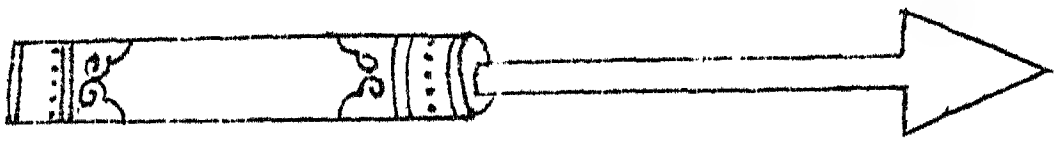
杖　絲　拐



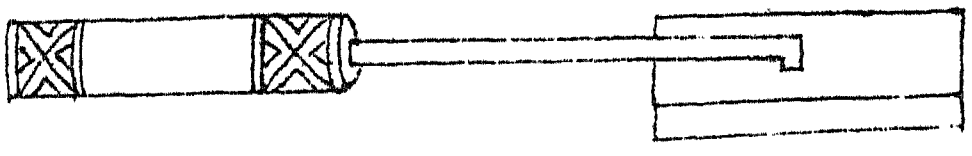
斧火



錐烙



鐵烙



火樓中出皆成烈焰其挹注有椀有杓貯油有沙羅發火有錐貯火有鑵錐通錐以開筒之壅塞有鈴以夾火有烙鉄以補漏通櫃筒有罅漏以蠟油青補之凡十二物除鈴錐烙鉄外悉以銅為之一法為一大卷筒中央貫銅胡盧下施雙足內有小足相通亦皆以銅為之亦施拶絲杖其放法準上凡敵來攻城及大壕內及傅城上頗衆勢不能過則先用藁韎為火牛縋城下於踏空版內放猛火油中人皆糜爛水不能滅若水戰則可燒浮橋戰艦於上流放

焚棄宿草撤屋埋井有水泉皆投毒藥水石磚瓦茭芻餱糧畜牧與居民什器盡徙入城内徙不逮者焚之主將閱視守禦器械各令牢具又頂穿井無數惟無近城又備糧糒布帛芻草蘆葦茅荻石灰沙土鐵炭松樺蒿艾膏油麻皮氊荆棘篦籬釜鑊盆甕桶缶木石塼竹鍬钁鑱斧錐鑿梯索之類凡委於撝切積子智切及櫓棚扇門棧但火攻可及之處悉皆氊覆泥塗棚樓下隨處積檑木檑石鎗斧及他短兵外立弩車

城下百步給雜役三五十人掌負挈所須索物仍各
授一官督領衢巷通夜張燈燭察姦人出入與軍士
之私相過從者量城上
防非時抽易五步有五長十步有十長百步有將別
令虞侯領戰隊作雌雄契符以巡城所至與守隊勘
同乃過 契符形制在符契門若賊勢外振士心內貳則或轉左
隊以為右易前軍以置後或一日數易或數日不移
又間使人持偽契巡行以驗試將士每將各設四表

賊來近則舉一表賊至城則舉一表賊登城則舉三表賊攀女牆則舉四表夜則加燭於表上虞候戰隊視舉表處緩急如敵人向城乘城將士皆援立牌以蔽障城及賊上並度賊遠近施放矢弓火毬火鷄鞭箭飛炬城下則拋飛鈎賊若城壕則為火藥鞭箭以射焚燒芻藁橋械賊傳城欲上則隨其處下檑木檑石以擊之隨飛炬以燒其兵器下火床及以行爐鎔鐵洒灼敵人颺石灰糠麩眯害其目踏空版內雜出

水處十數步開一井井内各相通以洩流之若水已入城則於新築牆外作船二十隻選勇士每船三十人質其父母妻子各授弓弩短兵鈚鑹遣瞑夜從衝枚並赴賊堤堰破賊營砦所選之士須預習水戰度力不能勝加船以進或賊已覺則城上設鼓

凡賊 關

城門我當偽為不知開以誘其入預設陷馬坑機橋於重牆曲巷内出兵迎擊引誘以陷之或約其入一二百人即下重垂鐘版